



#### ORIGINAL

March 30, 2012

**Docket Control** Arizona Corporation Commission 1200 West Washington Street Phoenix, Arizona 85007

JEFFREY W. JOHNSON

Regulatory Affairs Supervisor State Regulation

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Arizona Corporation Commission DOCKETED

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Arizona Public Service Company's Resource Planning Annual Filing for Historical RE: Year 2011; Docket No. E-00000A-11-0113

Pursuant to A.A.C. R14-2-703, Arizona Public Service Company is filing its Historical Resource Planning report for 2011. The confidential portion of this filing is being provided to Staff pursuant to an executed Protective Agreement in this matter.

If you have any questions regarding this information, please contact me at (602)250-2661.

Sincerely,

Jeffrey W. Johnson

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cc:

Brian Bozzo Terri Ford Barbara Keene

#### Arizona Public Service Company

#### RESOURCE PLANNING INFORMATION

**FOR THE HISTORICAL YEAR 2011** 

In Compliance with
Arizona Administrative Code R14-2-703

March 2012 Filing

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	A.A.C. Regulation R14-2-703, Sections A & B	Location
A.	A load-serving entity shall, by April 1 of each year, file with Docket Control a compilation of the following items of demand-side data, including for each item for which no record is maintained the load-serving entity's best estimate and a full description of how the estimate was made:	
A.1	<ul> <li>Hourly demand for the previous calendar year, disaggregated by:</li> <li>a. Sales to end users;</li> <li>b. Sales for resale;</li> <li>c. Energy losses; and</li> <li>d. Other disposition of energy, such as energy furnished without charge and energy used by the load-serving entity;</li> </ul>	Tab I
A.2	Coincident peak demand (megawatts) and energy consumption (megawatt-hours) by month for the previous 10 years disaggregated by customer class;	Tab II
<b>A.3</b>	Number of customers by customer class for each of the previous 10 years; and	Tab III
A.4	Reduction in load (kilowatt and kilowatt-hours) in the previous calendar year due to existing demand management measures, by type of demand management measure.	Tab IV
В.	A load-serving entity shall, by April 1 of each year, file with Docket Control a compilation of the following items of supply-side data, including for each item for which no record is maintained the load-serving entity's best estimate and a full description of how the estimate was made:	
B.1	For each generating unit and purchased power contract for the previous calendar year:	Tab V
	<ul> <li>a. In-service date and book life or contract period;</li> <li>b. Type of generating unit or contract;</li> <li>c. The load-serving entity's share of the generating unit's capacity, or of capacity under the contract, in megawatts;</li> <li>d. Maximum generating unit or contract capacity, by hour, day, or megawatts.</li> </ul>	onth, if
	such capacity varies during the year; e. Annual capacity factor (generating units only); f. Average heat rate of generating units and, if available, heat	
	rates at selected output levels; g. Average fuel cost for generating units, in dollars per million Btu for each type of fuel;	
	h. Other variable operating and maintenance costs for	

generating units, in dollars per megawatt hour;

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A.A.C. Regulation R14-2-703, Sections A & B

B.1 (co	ont.)	
	i. Purchased power energy costs for long-term contracts,	
	in dollars per megawatt-hour;	
	j. Fixed operating and maintenance costs of generating	
	units, in dollars per megawatt;	
	k. Demand charges for purchased power;	
	1. Fuel type for each generating units;	
	m. Minimum capacity at which the generating	
	unit would be run or power must be purchased;	
	n. Whether, under standard operating procedures, the	
	generating unit must be run if it is available to run;	
	<ul> <li>Description of each generating unit as base load, intermediate, or peaking;</li> </ul>	
	p. Environmental impacts, including air emission quantities (in	
	metric tons or pounds) and rates (in quantities per	
	megawatt-hour) for carbon dioxide, nitrogen oxides, sulfur	
	dioxide, mercury, particulates, and other air emissions subject	
	to current or expected future environmental regulation;	
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	b. Production cost;	
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	d. Spinning reserve;	
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	of all purchases and sales related to short-term contracts; and	
	g. Energy losses;	
<b>B.3</b>	The level of self-generation in the load-serving entity's service	Tab VII
	area for the previous calendar year; and	
<b>B.4</b>	An explanation of any resources procurement processes used	Tab VIII
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	did not include use of an RFP, including the exception under	
	which the process was used.	

Location

#### Tab I

R14-2-703 Section A.1.a

Attached is the response to this section.

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Tab I

R14-2-703 Section: A.1.b

Hourly demand for the previous calendar year is not available. Monthly megawatt-hours (MWh) are listed below.

SALES FOR RESALE 2011

DEC	38,764
NOV	41,177
OCT	96,117
SEP	117,976
AUG	131,335
JUL	117,688
NOI	112,130
MAY	83,524
APR	69,394
MAR	55,724
FEB	45,837
JAN	40,316
	ENERGY (MWH)

Tab I

## R14-2-703 Section: A.1.c

Hourly demand for the previous calendar year is not available. Monthly MWh are listed below.

ENERGY LOSSES

DEC	120,680
NOV	115,199
OCT	177,505
SEP	214,353
AUG	216,581
JUL	182,620
JUN	181,910
MAY	153,910
APR	140,430
MAR	145,196
FEB	135,270
JAN	125,847
	ENERGY (MWH)

Energy losses shown are exclusive of APS unregulated activities.

Tab I

R14-2-703 Section: A.1.d

Hourly demand for the previous calendar year is not available. Monthly MWh are listed below.

COMPANY USE 2011

4,835 AUG 6,116 JUL 4,578 ND MAY 6,659 4,115 APRMAR 6,030 5,194 FEB JAN 7,493 **ENERGY (MWH)** 

4,932

4,193

4,651

4,913

DEC

NOV

OCT

SEP

#### Tab II

#### R14-2-703 Section A.2

Coincident peak demand (megawatts) and energy consumption (megawatt-hours) by month for the previous 10 years disaggregated by customer class.

Information for the twelve months ending December 2011 is attached. The previous ten years of coincident peak demand and energy consumption can be found in previous versions of Arizona Public Service Company's Resource Planning Annual Filings on file with the Arizona Corporation Commission.

TOU Periods - All Months: On-Peak Off-Peak 9 am 9 pm, M-F 8 am - 9 pm, M-F & All Weekends

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### Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* Total Residential \*\*\*

WINTER ANNUAL (Nov-Apr)	Summation Ind Max by Season 7,652.3 6,505.5 7,652.3	.3 5,365.9 6,896.3	.7 6,264.6 7,235.7	Class Peak by Season 5.7 2,700.8 4,365.7	.9 2,909.1 4,557.9	Coincident Peak by Season .811.6 2.378.5 3.811.6	Energy Summation by Season 79,394 1,435,319 4,314,713 35.0% 28.4% 32.5%	3,616,059 8,973,754 % 71.6% 67.5%	39 5,051,378 13,288,467	Customer Averages by Season 389,775 998,713 994,244	Seasonal Factors  0.366  0.498	% 17.7% 19.8%	% 39.6% 33.3%	% 55.8% 40.9%	Seasonal Averages	6.56	1.86 2.58
SUMMER (May-Oct)	Sumn 7,652	6,896.3	7,235.7	Cla:	4,557.9	Coinc 3,811.6	Energy 2,879,394 35.0%	5,357,695 65.0%	8,237,089	Сиstот 989,775	S 0.498	24.6%	41.3%	20.7%	S( 1,387	7.05	3.31
Dec 11	6,505.5	5,365.9	6,264.6	2,233.6	2,562.0	2,068.1 7th@0800	263,309 27.8%	684,639	947,948	1,003,689	0.318	20.0%	50.7%	62.8%	944	6.48	2.06
Nov 11	5,527.1	4,473.5	5,243.3	1,688.6	1,739.7	1,401.6 1st@1900	200,857	497,763	698,620	993,561	0.254	17.3%	55.0%	68.3%	203	5.56	1.41
Oct 11	6,194.5	5,180.9	5,905.9	2,705.9	3,176.4	2,856.9 2nd@1700	290,806	660,583	951,389	989,684	0.461	21.0%	41.0%	45.6%	961	6.26	2.89
Sep 11	7,099.7	6,332.7	9,668.6	4,196.6	4,097.3	3,509.6 1st@1700	539,043 36.4%	941,716 63.6%	1,480,759	8290,578	0.494	28.6%	48.3%	57.8%	1,495	71.7	3.54
Aug 11	7,652.3	6,896.3	7,224.1	4,365.7	4,557.9	3,811.6 24th@1700	690,507	1,138,474	1,828,981	988,300	0.498	32.7%	25.0%	65.7%	1,851	7.74	3.86
Jul 11	7,524.0	6,634.8	7,235.7	4,067.4	4,210.1	3,711.9 2nd@1600	591,625	1,170,191	1,761,816	988,230	0.493	32.1%	27.3%	65.0%	1,783	7.61	3.76
Jun 11	7,198.3	6,406.3	6,857.5	3,467.7	3,432.1	3,449.7 27th@1700	475,202 36.3%	832,794 63.7%	1,307,996	989,991	0.479	24.9%	51.7%	51.9%	1,321	7.27	3.48
May 11	6,207.4	5,232.1	5,888.0	2,655.5	2,735.0	2,294.9 27th@1700	292,211 32.2%	613,937 67.8%	906,148	991,869	nth. 0.370	20.0%	45.4%	54.1%	914	6.26	2.31
Apr 11	6,037.7	4,889.6	5,759.2	2,021.5	2,243.6	1,767.3 1st@1800	232,947 30.9%	520,268 69.1%	753,215	995,954	All load factors are calculated based on 730 hours per month 0.306 0.378 0.293	17.1%	46.0%	58.4%	756	90.9	1.77
Mar 11	5,717.1	4,656.3	5,385.2	1,829.8	1,928.1	1,591.9 31st@2000	248,440	549,421 68.9%	797,861	1,000,152	1 based on 730 0.278	19.1%	26.7%	68.7%	798	5.72	1.59
Feb 11	6,294.5	5,023.7	6,041.1	2,700.8	2,909.1	2,378.5 3rd@0800	231,516 27.4%	613,999	845,515	999,573	s are calculate	18.4%	39.8%	48.7%	846	6.30	2.38
Jan 11	6,320.4	4,873.6	6,112.5	2,084.4	2,523.8	1,936.1 5th@0800	258,249 25.6%	749,970 74.4%	1,008,219	999,350	All load factors 0.306	21.9%	54.7%	71.3%	1,009	6.32	1.94
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak Weighted	Off-Peak Weighted	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)

TOU Periods - All Months: On-Peak Off-Peak 9 am 9pm, M-F 9pm, M-F & All Weekends



## Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* Residential E-12 \*\*\*

ANNUAL	Season 2,495.0	2,363.3	2,277.4	1,312.6	1,299.5	on 1,107.6	son 1,595,189 39.8%	2,414,207 60.2%	4,009,396	472,681	0.444	18.3%	34.9%	45.1%	708	4.79	1.55
WINTER /		2,114.8	2,245.5	Class Peak by Season 2.6 909.6	938.5	Coincident Peak by Season 107.6	Energy Summation by Season 82,644 612,546 1,5 42.7% 35.9%	1,095,140 64.1%	1,707,686	476,900	Seasonal Factors	16.1%	41.5%	65.0%	Seasonal Averages	4.71	1.22
SUMMER WI (May-Oct) (No	Summation Ind Max by 2,495.0 2,427.2	2,363.3	2,277.4	Class Per 1,312.6	1,299.5	Coincident I	Energy Sumn 982,644 42.7%	1,319,066 57.3%	2,301,710	Customer Averages by Season 468,461 476,900 4	Seasor 0.444	21.1%	40.0%	51.8%	Season: 819	4.86	1.88
Dec 11	2,353.9	2,063.4	2,181.9	739.6	762.3	599.7 7th@0800	112,421 35.1%	207,734 64.9%	320,155	472,283	0.255	18.6%	27.5%	73.1%	678	4.98	1.27
Nov 11	1,966.4	1,736.7	1,790.4	530.5	527.7	414.6 1st@1900 7	79,359 38.1%	129,102 61.9%	208,461	466,971	0.211	14.5%	53.8%	%6'89	446	4.21	0.89
Oct 11	2,025.0	1,814.1	1,844.3	755.0	845.4	724.7 2nd@1700 1	99,489 38.7%	157,867 61.3%	257,356	463,498	0.358	17.4%	41.7%	48.6%	555	4.37	1.56
Sep 11	2,226.4	2,083.0	1,991.7	1,227.5	1,164.7	1,012.7 1st@1700 2	182,993 45.5%	218,873 54.5%	401,866	465,683	0.455	24.7%	44.8%	54.4%	863	4.78	2.17
Aug 11	2,495.0	2,363.3	2,236.8	1,312.6	1,299.5	1,107.6 24th@1700 1	234,273	270,789 53.6%	505,062	466,785	0.444	27.7%	52.7%	62.5%	1,082	5.35	2.37
Jul 11	2,455.8	2,294.3	2,277.4	1,215.2	1,191.8	1,014.4 2nd@1600 24	204,661	289,137 58.6%	493,798	469,380	0.413	27.5%	55.7%	%2'99	1,052	5.23	2.16
Jun 11	2,366.8	2,125.4	2,219.2	1,124.2	1,036.5	786.1 27th@1700 2	152,454 41.2%	217,913 58.8%	370,367	471,578	0.332	21.4%	45.1%	64.5%	785	5.02	1.67
May 11	2,088.7	1,878.3	1,893.5	752.9	730.7	635.9 27th@1700 27	108,774	164,487	273,261	473,842	ћ. 0.304	17.9%	49.7%	28.9%	577	4.41	1.34
Apr 11	2,192.3	1,880.6	2,030.9	687.2	653.2	605.6 1st@1800 27	96,155 38.5%	153,503 61.5%	249,658	478,881	hours per mont 0.276	15.6%	49.8%	26.5%	521	4.58	1.26
Mar 11	2,160.7	1,919.7	1,964.6	577.8	612.4	497.0 31st@2000	109,337 39.2%	169,496 60.8%	278,833	481,862	based on 730 I 0.230	17.7%	62.4%	76.9%	579	4.48	1.03
Feb 11	2,427.2	2,114.8	2,243.8	9.606	938.5	764.7 3rd@0800 3	102,996 34.4%	196,309 65.6%	299,305	481,294	are calculated 0.315	16.9%	43.7%	53.6%	622	5.04	1.59
Jan 11	2,388.5	2,031.8	2,245.5	695.7	902.1	604.0 5th@0800 3	112,277	238,997	351,274	480,109	All load factors are calculated based on 730 hours per month.  0.253 0.315 0.330 0.276	20.1%	53.3%	79.7%	732	4.98	1.26
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)

TOU Periods - All Months: On-Peak Off-Peak 9 am 9pm, M-F 9 pm - 9 am, M-F & All Weekends



Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* Residential ET-1 \*\*\*

ANNUAL	15on 2,201.5	1,984.1	2,126.2	1,326.3	1,372.8	on 1,297.9	1,424,735 35.5%	2,586,202 64.5%	4,010,937	239,813	0.590	20.8%	33.4%	39.4%	1,401	7.73	3.28
WINTER A	Summation Ind Max by Season 2,201.5 1,892.0	1,467.4	1,842.2	Class Peak by Season 6.3 786.2	904.6	Coincident Peak by Season 297.9 730.8	Energy Summation by Season 83,918 440,817 1,4 38.8% 29.9%	1,032,758 70.1%	1,473,575	Customer Averages by Season 235,523 244,102 2	Seasonal Factors	17.8%	37.2%	62.3%	Seasonal Averages	6.91	2.17
SUMMER W	Summation b	1,984.1	2,126.2	Class Pe 1,326.3	1,372.8	Coincident 1,297.9	Energy Sum 983,918 38.8%	1,553,444	2,537,362	Customer Av 235,523	Seaso 0.590	26.3%	42.2%	49.8%	Seasor 1,798	8.54	4.39
Dec 11	1,602.1	1,339.3	1,563.6	560.2	672.6	540.4 7th@0800	72,463 30.2%	167,791 69.8%	240,254	214,076	0.337	20.5%	48.9%	%6.09	1,122	7.48	2.52
Nov 11	1,386.7	1,152.8	1,324.8	435.3	468.7	361.3 1st@1900 7	60,486	128,282 68.0%	188,768	215,597	0.261	18.6%	55.2%	71.6%	876	6.43	1.68
Oct 11	1,670.8	1,395.6	1,617.6	782.1	0.706	809.8 2nd@1700	91,824	184,042 66.7%	275,866	220,686	0.485	22.6%	41.7%	46.7%	1,250	75.7	3.67
Sep 11	2,014.6	1,841.0	1,895.7	1,214.8	1,187.2	1,026.0 1st@1700 2	181,411	264,348 59.3%	445,759	226,946	0.509	30.3%	50.3%	29.5%	1,964	8.88	4.52
Aug 11	2,201.5	1,984.1	2,113.7	1,305.8	1,372.8	1,162.8 24th@1700	234,798	329,508 58.4%	564,306	233,504	0.528	35.1%	26.3%	66.5%	2,417	9.43	4.98
Jul 11	2,183.1	1,919.4	2,126.2	1,230.3	1,327.5	1,162.9 2nd@1600 24	204,982	345,977 62.8%	550,959	238,203	0.533	34.6%	%6.99	64.9%	2,313	9.17	4.88
Jun 11	2,145.1	1,929.1	2,038.2	1,326.3	1,297.0	1,297.9 27th@1700 21	173,698	244,775 58.5%	418,473	244,712	0.605	26.7%	43.2%	44.2%	1,710	8.77	5.30
May 11	1,850.0	1,590.4	1,777.0	868.1	876.5	744.5 27th@1700 27	97,205 34.5%	184,794 65.5%	281,999	249,089	m. 0.402	20.9%	44.1%	51.9%	1,132	7.43	2.99
Apr 11	1,756.8	1,434.0	1,699.2	607.3	725.9	483.4 1st@1800 2	72,808	155,838 68.2%	228,646	252,412	All load factors are calculated based on 730 hours per month.  0.335 0.401 0.266 0.275	17.8%	43.1%	64.8%	906	96:9	1.92
Mar 11	1,662.7	1,324.5	1,574.4	537.6	595.1	442.6 31st@2000 1	76,342 31.6%	165,006 68.4%	241,348	256,833	based on 730 0.266	19.9%	25.6%	74.7%	940	6.47	1.72
Feb 11	1,823.6	1,461.7	1,775.9	786.2	904.6	730.8 3rd@0800 3	74,045	185,111 71.4%	259,156	260,778	are calculated 0.401	19.5%	39.2%	48.6%	994	66.9	2.80
Jan 11	1,892.0	1,467.4	1,842.2	651.7	791.0	634.1 5th@0800	84,674 26.8%	230,729 73.2%	315,403	264,917	All load factors 0.335	22.8%	54.6%	68.1%	1,191	7.14	2.39
) [] 	X (MW)				H										JES		M)
	SUMMATION IND MAX (MW)	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)

\*\*\* Residential ECT-1R \*\*\*

ANNUAL	509.5	454.2	495.6	342.0	340.0	n 341.9	on 408,896 36.0%	727,943 64.0%	1,136,839	41,924	0.671	25.5%	37.9%	42.7%	2,269	9.83	4.93
WINTER A (Nov-Apr)	Summation Ind Max by Season 509.5 402.1	321.9	397.5	Class Peak by Season 2.0	231.3	Coincident Peak by Season 341.9 192.1	Energy Summation by Season 275,666 133,231 4 38.9% 31.1%	295,242 68.9%	428,473	Customer Averages by Season 41,270 42,578	Seasonal Factors	24.3%	42.3%	70.8%	Seasonal Averages	8.57	3.36
SUMMER WI (May-Oct) (No	Summation In 509.5	454.2	495.6	Class Pea	340.0	Coincident F	Energy Sumn 275,666 38.9%	432,700 61.1%	708,366	Customer Ave 41,270	Season 0.671	31.7%	47.3%	53.3%	Seasons 2,863	11.09	6.50
Dec 11	351.0	290.6	342.9	137.8	175.4	138.1 7th@0800	21,948 30.4%	50,196 69.6%	72,144	38,747	0.393	28.2%	56.3%	71.6%	1,862	90.6	3.56
Nov 11	300.0	253.2	285.7	118.4	125.6	100.8 1st@1900	18,112 32.1%	38,234 67.9%	56,346	38,875	0.336	25.7%	61.5%	76.6%	1,449	7.72	2.59
Oct 11	377.0	313.9	366.8	197.2	245.5	223.2 2nd@1700	26,191 33.3%	52,560 66.7%	78,751	39,396	0.592	28.6%	43.9%	48.3%	1,999	9.57	5.67
Sep 11	443.8	409.5	421.8	293.6	299.9	249.3 1st@1700 2	49,309	72,040 59.4%	121,349	39,995	0.562	37.5%	55.4%	%2'99	3,034	11.10	6.23
Aug 11	503.6	454.2	483.0	329.2	338.9	292.0 24th@1700 1	64,056 41.6%	90,083 58.4%	154,139	40,842	0.580	41.9%	62.3%	72.3%	3,774	12.33	7.15
Jul 11	509.5	451.2	495.6	318.3	340.0	303.7 2nd@1600 2	56,921 37.4%	95,154 62.6%	152,075	41,543	0.596	40.9%	61.3%	%9.89	3,661	12.27	7.31
Jun 11	498.2	446.9	472.8	342.0	336.5	341.9 27th@1700 2	49,468	69,110 58.3%	118,578	42,647	0.686	32.6%	47.5%	47.5%	2,780	11.68	8.02
May 11	414.9	352.6	402.0	229.7	245.0	199.8 27th@1700 2	29,721 35.6%	53,753 64.4%	83,474	43,195	th. 0.482	27.6%	46.7%	57.2%	1,932	9.61	4.63
Apr 11	390.1	321.9	377.6	167.1	183.6	148.1 1st@1800 2	22,389	44,777 66.7%	67,166	43,623	hours per mon 0.380	23.6%	50.1%	62.1%	1,540	8.94	3.39
Mar 11	358.5	300.4	340.3	147.3	150.5	128.7 31st@2000 1	23,816	46,757 66.3%	70,573	44,210	All load factors are calculated based on 730 hours per month.  0.363 0.493 0.359 0.380	27.0%	64.2%	75.1%	1,596	8.11	2.91
Feb 11	389.6	317.6	381.4	188.0	231.3	192.1 3rd@0800 3	21,837	51,237 70.1%	73,074	44,742	are calculated 0.493	25.7%	43.3%	52.1%	1,633	8.71	4.29
Jan 11	402.1	303.9	397.5	150.8	199.7	154.0 5th@0800 3	25,128 28.2%	64,042 71.8%	89,170	45,271	All load factors 0.383	30.4%	61.2%	79.3%	1,970	8.88	3.40
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)

TOU Periods - All Months: On-Peak Off-Peak 9 am 9pm, M-F 9 pm - 9 am, M-F & All Weekends

TOU Periods - All Months: On-Peak Off-Peak 12 pm 7 pm, M-F 7 pm - 12 pm, M-F & All Weekends



## Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* Residential ET-2 \*\*\*

	Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sep 11	Oct 11	Nov 11	Dec 11	SUMMER V (May-Oct) (N	WINTER ANNUAL (Nov-Apr)	¥
SUMMATION IND MAX (MW) Non-Timed	1,223.8	1,236.0	1,153.0	1,266.0	1,373.9	1,610.9	1,735.3	1,789.0	1,766.0	1,549.9	1,406.1	1,643.7	Summation I 1,789.0	Summation Ind Max by Season 1,789.0 1,643.7	,789.0
	813.8	864.7	843.9	948.4	1,055.7	1,384.3	1,474.4	1,558.2	1,483.4	1,233.2	1,003.5	1,252.7	1,558.2	1,252.7	1,558.2
	1,214.5	1,224.7	1,129.9	1,228.2	1,342.9	1,568.4	1,703.1	1,741.0	1,721.4	1,512.4	1,382.0	1,629.8	1,741.0	1,629.8	1,741.0
CLASS PEAK (MW) On-Peak	380.4	496.0	377.9	433.0	583.0	821.2	970.7	1,039.1	1,046.4	6:669	412.6	537.8	Class Pe 1,046.4	Class Peak by Season 6.4 537.8 1	1,046.4
	487.3	600.2	430.3	505.5	611.0	821.8	9.766	1,110.2	1,007.8	845.3	471.5	681.4	1,110.2	681.4	1,110.2
COINCIDENT (MW) System Time	378.2 5th@0800	490.2 3rd@0800 3	374.2 31st@2000	389.3 1st@1800 27	511.0 27th@1700 27	756.1 27th@1700 2r	876.7 2nd@1600 24	894.8 24th@1700 1s	877.6 1st@1700 2n	759.7 2nd@1700 1s	365.6 1st@1900 7tt	555.9 7th@0800	Coincident 894.8	Coincident Peak by Season 894.8 555.9	894.8
ENERGY (MWH) On-Peak %	25,091	22,823 15.4%	27,272	29,057 20.4%	39,716	69,891 25.3%	89,508	112,234 26.7%	88,742 25.0%	51,105 22.0%	29,775	39,208 18.1%	Energy Sum 451,197 24.3%	Energy Summation by Season 451,197 173,226 62 24.3% 17.5%	624,423 21.9%
	148,267 85.5%	125,276 84.6%	114,816 80.8%	113,207 79.6%	143,518 78.3%	206,257 74.7%	302,720 77.2%	307,341 73.3%	265,692 75.0%	181,484 78.0%	136,798 82.1%	176,824 81.9%	1,407,011 75.7%	815,188 2,22 82.5%	2,222,199 78.1%
	173,358	148,099	142,088	142,264	183,234	276,148	392,228	419,575	354,434	232,589	166,573	216,032	1,858,208	988,414 2,84	2,846,622
CUSTOMERS Monthly Count	162,828	166,039	169,931	173,185	177,139	181,403	186,748	192,781	201,003	207,122	211,703	216,586	Customer Av	Customer Averages by Season 191,033 183,379 18	n 187,206
FACTORS Coincident Factor (CP)	All load factors 0.309	s are calculated 0.397	1 based on 730 0.325	All load factors are calculated based on 730 hours per month.  0.309 0.397 0.325 0.308	th. 0.372	0.469	0.505	0.500]	0.497	0.490	0.260	0.338	Seaso 0.500	Seasonal Factors	0.500
Load Factor (Max) %	19.4%	16.4%	16.9%	15.4%	18.3%	23.5%	31.0%	32.1%	27.5%	20.6%	16.2%	18.0%	23.7%	13.7%	18.2%
Load Factor (NCP) %	48.7%	33.8%	45.2%	38.6%	41.1%	46.0%	23.9%	51.8%	46.4%	37.7%	48.4%	43.4%	38.2%	33.1%	29.3%
Load Factor (CP) %	62.8%	41.4%	25.0%	50.1%	49.1%	20.0%	61.3%	64.2%	55.3%	41.9%	62.4%	53.2%	48.4%	40.6%	37.1%
CUSTOMER AVERAGES Energy Use (kWh)	1,065	892	836	821	1,034	1,522	2,100	2,176	1,763	1,123	787	266	Seasor 1,620	Seasonal Averages 0  900	1,260
Ind. Max Demand (kW)	7.52	7.44	6.79	7.31	7.76	8.88	9.29	9.28	8.79	7.48	6.64	7.59	8.58	7.21	7.90
Coincident Demand (kW)	2:32	2:95	2.20	2.25	2.88	4.17	4.69	4.64	4.37	3.67	1.73	2.57	4.07	2.34	3.20

\*\*\* Residential ECT-2 \*\*\*

ANNUAL	son 660.5	534.2	646.8	397.2	446.7	353.5	260,680 20.4%	1,019,721 79.6%	1,280,401	son 52,330	0.535	22.1%	32.7%	41.4%	2,029	9.91	4.60	
WINTER A	Summation Ind Max by Season 660.5 551.7	417.7	543.2	Class Peak by Season 397.2	286.5	Coincident Peak by Season 353.5 233.1	Energy Summation by Season 185,432 75,248 2 22.4% 16.7%	376,457 83.3%	451,705	Customer Averages by Season 53,178 51,481	Seasonal Factors	18.7%	36.0%	44.2%	Seasonal Averages	8.63	3.41	
SUMMER W (May-Oct) (No	Summation Ir	534.2	646.8	Class Pe	446.7	Coincident 353.5	Energy Sumr 185,432 22.4%	643,264 77.6%	828,696	Customer Ave	Seasor 0.535	28.6%	42.4%	53.6%	Season 2,595	11.19	5.79	
Dec 11	551.7	417.7	543.2	214.2	286.5	233.1 7th@0800	17,190	81,710 82.6%	006'86	61,576	0.423	24.6%	47.3%	58.1%	1,606	8.96	3.79	
Nov 11	465.3	325.8	457.9	180.6	205.1	158.8 1st@1900 7t	13,074	65,077 83.3%	78,151	60,012	0.341	23.0%	52.2%	67.4%	1,302	7.75	2.65	
Oct 11	569.1	422.2	562.1	286.1	371.2	338.4 2nd@1700 1	22,125 20.8%	84,298	106,423	28,600	0.595	25.6%	39.3%	43.1%	1,816	9.71	5.77	
Sep 11	646.1	513.9	635.3	397.2	428.3	343.1 1st@1700 2	36,479	120,316 76.7%	156,795	56,599	0.531	33.2%	50.1%	62.6%	2,770	11.42	90.9	
Aug 11	660.5	534.2	646.8	396.8	446.7	353.5 24th@1700	45,011	140,246 75.7%	185,257	54,056	0.535	38.4%	56.8%	71.8%	3,427	12.22	6.54	
Jul 11	637.7	493.5	630.7	354.3	406.9	353.1 2nd@1600 2	35,452 20.6%	136,739 79.4%	172,191	52,037	0.554	37.0%	28.0%	%8.99	3,309	12.25	6.79	٠
Jun 11	575.3	519.1	556.8	375.1	373.6	266.9 27th@1700 2	29,614	94,474	124,088	49,405	0.464	29.5%	45.3%	63.7%	2,512	11.64	5.40	
May 11	478.3	353.9	471.0	238.9	271.3	203.3 27th@1700 2	16,751 20.0%	67,191 80.0%	83,942	48,370	0.425	24.0%	42.4%	26.6%	1,735	9.89	4.20	
Apr 11	431.0	304.5	421.8	163.1	212.2	140.6 1st@1800 2	12,507 19.2%	52,795 80.8%	65,302	47,632	0.326	20.8%	42.2%	63.6%	1,371	9:02	2.95	
Mar 11	380.9	266.9	374.8	140.6	171.0	149.0 31st@2000 1	11,642	53,202 82.0%	64,844	47,113	0.391	23.3%	52.0%	29.6%	1,376	8.08	3.16	
Feb 11	416.8	264.0	413.9	176.7	243.7	200.2 3rd@0800 3	9,786	55,909 85.1%	65,695	46,523	0.480	21.6%	36.9%	45.0%	1,412	8.96	4.30	
Jan 11	412.5	255.7	411.5	147.1	207.0	165.3 5th@0800	11,050	67,763 86.0%	78,813	46,031	0.401	26.2%	52.1%	65.3%	1,712	8.96	3.59	
	SUMMATION IND MAX (MW)  Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (KWh)	Ind. Max Demand (kW)	Coincident Demand (kW)	

TOU Periods - All Months: On-Peak Off-Peak 12 pm 7 pm, M-F 7 pm, M-F & All Weekends

On-Peak Off-Peak 12 pm 7 pm, M-F 7 pm - 12 pm, M-F & All Weekends

TOU Periods - All Months:

## sde

## Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* Residential ET-SP \*\*\*

ANNUAL.	son 3.1		2.2	3.1	1.2	1.5	1:1	790 18.5%	3,482 81.5%	4,272	son 292	0.392	15.6%	32.5%	44.3%	1,191	7.32	2.36
WINTER A (Nov-Apr)	Summation Ind Max by Season		2:2	3.1	Class Peak by Season 1.2	1.2	Coincident Peak by Season	Energy Summation by Season 538 251 19.6% 16.5%	1,274 83.5%	1,525	Customer Averages by Season 311	Seasonal Factors	11.1%	29.8%	38.7%	Seasonal Averages	6.82	1.97
SUMMER W	Summation Ir		2.2	2.7	Class Pe	1.5	Coincident 1.1	Energy Sumr 538 19.6%	2,209 80.4%	2,747	Customer Av	Seasor 0.392	22.3%	41.8%	57.0%	Season 1,458	7.82	2.76
Dec 11	3.3		2.2	3.1	0.8	1.2	0.9 7th@0800	79	384 82.9%	463	421	0.287	20.2%	54.2%	70.5%	1,100	7.45	2.14
Nov 11   E	2.5		1.6	2.5	9.0	0.8	0.5 1st@1900 7th	51 15.9%	270	321	403	0.199	17.5%	25.9%	87.9%	797	6.25	1.24
Oct 11	27		1.9	2.7	1.0	1.2	1.1 2nd@1700	72	332 82.3%	404	382	0.401	20.2%	45.0%	50.3%	1,058	7.18	2.88
Sep 11	2.7	_ i	2.0	2.7	1.1	1.4	0.9 1st@1700 2	110	446 80.2%	556	352	0.328	27.7%	93.8%	84.6%	1,580	7.81	2.56
Aug 11	28		2.2	2.7	1.2	1.5	0.9 24th@1700	136	506 78.8%	642	332	0.321	31.3%	28.6%	%1.78	1,934	8.45	2.71
Jul 11	2.7		2.0	2.6	1.1	1.4	1.1 2nd@1600 24	101	464 82.2%	292	319	0.414	29.1%	26.8%	70.4%	1,771	8.34	3.45
Jun 11	2.0		1.6	1.9	6:0	1.0	0.8 27th@1700 2n	76 22.3%	266	342	246	0.397	23.2%	46.7%	28.6%	1,390	8.20	3.25
May 11	16		1.1	1.6	0.5	0.7	0.4 27th@1700 27	44	194 81.6%	238	234	0.245	20.0%	48.8%	81.5%	1,017	6.98	1.71
Apr 11	15	?	0.3	1.4	0.4	0.5	0.3 1st@1800 27	32 17.9%	147 82.1%	179	221	0.204	16.7%	47.8%	81.7%	810	99:9	1.36
Mar 11	13	!	6:0	1.3	0.3	0.4	0.4 31st@2000	31	144	175	203	0:307	18.4%	57.1%	29.9%	862	6.43	1.97
Feb 11	14		0.9	1.4	0.5	9.0	0.5 3rd@0800 31	28 15.3%	158 84.7%	186	197	0.350	17.8%	42.7%	51.0%	944	7.25	2.54
Jan 11			6:0	1.3	0.5	0.5	0.5 5th@0800	30	171 85.3%	201	194	0.373	20.5%	54.5%	55.1%	1,036	6.92	2.58
	SUMMATION IND MAX (MW)		On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)

\*\*\*General Service E-20\*\*\*

ANNUAL	30.2	23.8	29.6	12.2	23.8	ء 9.	on 13,997 33.0%	28,455	42,452	son 405	0.304	16.0%	20.3%	29.8%	8,690	52.00	13.05	
WINTER A	Summation ind Max by Season 30.2 19.9	16.3	19.4	Class Peak by Season 2.2	14.7	Coincident Peak by Season	Energy Summation by Season 9,136 4,860 34.1% 31.0%	10,812 69.0%	15,672	Customer Averages by Season 416	Seasonal Factors 0.236	18.0%	24.3%	111.8%	Seasonal Averages	40.54	9.89	
SUMMER WI (May-Oct) (No	Summation In 30.2	23.8	29.6	Class Pea	23.8	Coincident F	Energy Summ 9,136 34.1%	17,644 65.9%	26,780	Customer Ave	Seasor 0.301	20.2%	25.6%	75.5%	Season: 10,744	63.46	16.21	
Dec 11	16.3	12.3	16.1	7.1	10.6	3.2 7th@0800	861 28.9%	2,120	2,981	419	0.196	25.0%	38.5%	127.6%	7,115	38.97	7.64	
Nov 11	14.4	11.7	13.5	6.5	6.6	4.1 1st@1900 7t	962 32.9%	1,959 67.1%	2,921	419	0.285	27.8%	40.4%	%9'.26	6,971	34.37	9.79	
Oct 11	23.1	16.1	22.9	8.5	18.8	5.0 2nd@1700 1	1,247	2,720 68.6%	3,967	421	0.216	23.5%	28.9%	108.7%	9,423	54.86	11.88	
Sep 11	27.1	21.9	26.6	12.2	22.4	6.4 1st@1700	1,739	3,055	4,794	418	0.236	24.2%	29.3%	102.6%	11,469	64.81	15.31	
Aug 11	28.6	23.2	28.1	12.2	23.2	8.3 24th@1700	2,045	3,453	5,498	405	0.291	26.4%	32.4%	%2'06	13,575	70.53	20.49	
Jul 11	30.2	23.8	29.6	12.0	23.8	8.1 2nd@1600 2	1,687 32.3%	3,533	5,220	420	0.268	23.7%	30.0%	88.3%	12,429	71.98	19.29	
Jun 11	27.2	20.9	26.7	9.5	20.6	9.1 27th@1700 2	1,433	2,583	4,016	416	0.334	20.2%	26.7%	60.5%	9,654	65.42	21.88	
May 11	22.1	16.2	21.5	6.5	11.6	3.5 27th@1700 2	98e 30.0%	2,299	3,285	415	th. 0.159	20.4%	38.7%	128.6%	7,916	53.15	8.43	
Apr 11	19.9	16.3	19.4	8:9	14.7	4.1 1st@1800 2	939 34.4%	1,787 65.6%	2,726	411	hours per mon 0.206	18.8%	25.3%	91.1%	6,633	48.39	96.6	
Mar 11	15.0	12.5	14.3	6.4	9.4	4.7 31st@2000	822 34.3%	1,572 65.7%	2,394	114	based on 730. 0.314	21.9%	35.0%	69.8%	5,825	36.42	11.44	
Feb 11	14.9	11.1	14.6	6.9	10.6	3.9 3rd@0800	637 28.5%	1,594 71.5%	2,231	360	are calculated 0.263	20.6%	29.0%	78.4%	6,197	41.25	10.83	
Jan 11	15.0	9.7	14.9	5.3	11.6	3.3 5th@0800 3	640	1,779 73.6%	2,419	342	All load factors are calculated based on 730 hours per month.  0.220 0.263 0.314 0.206	22.1%	28.5%	100.4%	7,073	43.81	9.65	
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)	

TOU Periods - All Months: On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F & All Weekends

\*\*\* General Service E-221 \*\*\*

ANNUAL	son 174.0	147.3	172.6	85.0	102.1	91.5	3on 92,909 27.4%	245,708 72.6%	338,617	1,485	0.526	22.2%	37.9%	103.1%	18,993	101.76	24.86
WINTER A	Summation Ind Max by Season 174.0 161.6	137.8	158.6	Class Peak by Season 5.0 67.3	76.1	Coincident Peak by Season 91.5 34.7	Energy Summation by Season 55,546 37,363 26.9% 28.3%	94,501 71.7%	131,864	Customer Averages by Season 1,490	Seasonal Factors	18.6%	39.6%	115.3%	Seasonal Averages	95.63	20.46
SUMMER W (May-Oct) (No	Summation In	147.3	172.6	Class Pe	102.1	Coincident   91.5	Energy Sumr 55,546 26.9%	151,207 73.1%	206,753	Customer Avv 1,490	Seasor 0.526	27.1%	46.2%	125.9%	Season 23,126	107.88	29.25
Dec 11	113.4	97.6	110.6	38.3	49.6	26.1 7th@0800	6,637	16,525 71.3%	23,162	1,507	0.230	28.0%	64.0%	121.6%	15,370	75.26	17.32
Nov 11	133.6	117.7	131.2	56.9	64.3	33.1 1st@1900 71	8,007	18,540 69.8%	26,547	1,489	0.248	27.2%	26.6%	109.9%	17,829	89.71	22.23
Oct 11	148.7	133.3	147.9	64.9	17.71	27.6 2nd@1700 1	8,592 27.7%	22,458 72.3%	31,050	1,496	0.186	28.6%	55.2%	154.1%	20,755	99.42	18.45
Sep 11	150.2	129.0	148.7	69.7	82.9	25.5 1st@1700 2ı	7,720	21,747	29,467	1,489	0.170	76.9%	48.7%	158.3%	19,790	100.90	17.13
Aug 11	157.5	137.3	154.0	76.8	89.1	29.1 24th@1700 1	10,133 25.9%	29,063	39,196	1,480	0.185	34.1%	60.3%	184.5%	26,484	106.42	19.66
Jul 11	163.6	143.4	162.0	82.7	0.66	37.5 2nd@1600 24	8,948	29,277 76.6%	38,225	1,491	0.229	32.0%	52.9%	139.6%	25,637	109.71	25.15
Jun 11	170.6	147.3	169.1	85.0	102.1	91.5 27th@1700 2	11,294	26,255 69.9%	37,549	1,493	0.536	30.1%	50.4%	56.2%	25,150	114.29	61.29
May 11	174.0	138.0	172.6	73.8	91.6	50.5 27th@1700 2	8,858	22,408	31,266	1,493	th. 0.290	24.6%	46.8%	84.8%	20,942	116.56	33.82
Apr 11	161.6	137.8	158.6	67.3	76.1	34.7 1st@1800 2	6,106	18,251 74.9%	24,357	1,457	hours per mon 0.215	20.6%	43.9%	96.2%	16,717	110.93	23.82
Mar 11	146.4	129.1	142.2	56.6	8.99	34.3 31st@2000 1	5,490	13,869	19,359	1,466	All load factors are calculated based on 730 hours per month.  0.176 0.188 0.234 0.215	18.1%	39.7%	77.3%	13,205	99.84	23.40
Feb 11	147.9	127.9	144.1	54.7	58.3	27.8 3rd@0800 3	6,427	15,513 70.7%	21,940	1,471	are calculated 0.188	20.3%	51.5%	108.1%	14,915	100.56	18.90
Jan 11	144.7	124.4	138.6	48.0	58.8	25.4 5th@0800	4,695 28.5%	11,804	16,499	1,484	All load factors 0.176	15.6%	38.4%	89.0%	11,118	97.50	17.12
· '':Xday	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (KWh)	Ind. Max Demand (kW)	Coincident Demand (kW)

On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F & All Weekends

TOU Periods - All Months:

Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* General Service E-32 \*\*\* 0- 20 kW

ANNUAL	150n 887.3	775.9	837.2	488.8	448.5	on 361.2	514,035 36.8%	884,245 63.2%	1,398,280	18on 98,912	0.434	18.0%	32.7%	65.7%	1,179	7.72	2.52	
WINTER /	Summation Ind Max by Season 832.7 887.3	732.1	837.2	Class Peak by Season 8.8 394.7	448.5	Coincident Peak by Season 361.2  248.6	Energy Summation by Season 277,897 236,138 5 38.3% 35.1%	437,394 64.9%	673,532	Customer Averages by Season 97,225 100,600	Seasonal Factors	17.3%	34.3%	%8.99	Seasonal Averages	7.46	2.20	
SUMMER V (May-Oct) (N	Summation I 832.7	775.9	745.4	Class Pe	440.6	Coincident 361.2	Energy Sum 277,897 38.3%	446,851 61.7%	724,748	Customer Av 97,225	Seasc 0.434	19.9%	33.9%	68.1%	Seasol 1,243	7.97	2.84	
Dec 11	887.3	732.1	837.2	358.9	430.3	230.2 7th@0800	41,654	83,771 66.8%	125,425	101,959	0.259	19.4%	39.9%	74.6%	1,230	8.70	2.26	
Nov 11	688.2	617.6	627.3	309.8	291.4	188.2 1st@1900 7	36,984 36.6%	64,097 63.4%	101,081	100,026	0.273	20.1%	44.7%	73.6%	1,011	6.88	1.88	
Oct 11	740.9	690.3	680.5	414.1	364.2	195.6 2nd@1700 1	40,936	67,748 62.3%	108,684	97,616	0.264	20.1%	36.0%	76.1%	1,113	7.59	2.00	
Sep 11	832.7	775.9	733.5	478.3	420.3	283.4 1st@1700 2	44,649	63,992 58.9%	108,641	95,835	0.340	17.9%	31.1%	52.5%	1,134	8.69	2.96	
Aug 11	807.0	760.4	745.4	488.8	440.6	342.5 24th@1700 1	59,014	83,957 58.7%	142,971	96,065	0.424	24.3%	40.1%	57.2%	1,488	8.40	3.57	
Jul 11	792.0	719.4	739.3	448.2	401.7	243.0 2nd@1600 24	46,776 37.6%	77,552 62.4%	124,328	95,915	0.307	21.5%	38.0%	70.1%	1,296	8.26	2.53	
Jun 11	815.4	700.6	712.1	397.1	415.4	361.2 27th@1700 2	43,775 34.7%	82,493 65.3%	126,268	98,288	0.443	21.2%	41.6%	47.9%	1,285	8.30	3.67	
May 11	654.1	597.9	589.2	334.8	297.1	230.3 1@1700	42,746 37.5%	71,110 62.5%	113,856	069'66	h. 0.352	23.8%	46.6%	%2'29	1,143	6.57	2.31	
Apr 11	687.8	636.9	628.3	352.4	305.8	248.6 1st@1800 27tt	42,694	69,399	112,093	100,133	hours per moni 0.361	22.3%	43.6%	61.8%	1,119	6.87	2.48	
Mar 11	721.9	665.6	629.6	348.2	314.2	198.3 31st@2000 1	41,730	67,188 61.7%	108,918	100,838	All load factors are calculated based on 730 hours per month 0.294 0.314 0.275 0.361	20.7%	42.9%	75.2%	1,080	7.16	1.97	
Feb 11	763.1	658.2	726.5	394.7	448.5	239.7 3rd@0800 3	35,894 33.0%	72,949 67.0%	108,843	100,349	are calculated 0.314	19.5%	33.2%	62.2%	1,085	7.60	2.39	
Jan 11	758.9	638.4	731.0	355.2	393.8	223.0 5th@0800 3	37,181	79,991 68.3%	117,172	100,292	All load factors 0.294	21.2%	40.8%	72.0%	1,168	7.57	2:22	
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW)	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (KWh)	Ind. Max Demand (kW)	Coincident Demand (kW)	

TOU Periods - All Months: On-Peak Off-Peak 9 am 9 pm, M-F 9 am - 9 pm, M-F & All Weekends

Off-Peak 9 am - 9 pm, M-F & All Weekends

On-Peak 9 am 9 pm, M-F

TOU Periods - All Months:

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## Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* General Service E-32 \*\*\* 20- 100 kW

ANNUAL	son 989.0	946.0	923.4	702.6	648.7	on 525.4	son 937,659 35.9%	1,675,916 64.1%	2,613,575	17,986	0.531	30.2%	42.5%	%8'69	12,021	37.97	18.54
WINTER A	Summation Ind Max by Season 989.0 592.6	571.4	541.9	Class Peak by Season 2.6 381.8	369.6	Coincident Peak by Season 525.4 287.3	Energy Summation by Season 554,210 383,448 9 36.5% 35.1%	710,193 64.9%	1,093,641	Customer Averages by Season 19,769 16,204	Seasonal Factors 0.485	42.1%	65.4%	112.2%	Seasonal Averages	33.22	15.62
SUMMER W	Summation I	946.0	923.4	Class Pe	648.7	Coincident 525.4	Energy Sum 554,210 36.5%	965,724 63.5%	1,519,934	Customer Av 19,769	Seaso 0.531	35.1%	49.4%	81.2%	Seasor 12,778	42.71	21.46
Dec 11	492.7	441.8	472.9	290.0	299.4	222.5 7th@0800	64,600 33.5%	128,489 66.5%	193,089	15,652	0.452	53.7%	88.3%	118.9%	12,336	31.48	14.22
Nov 11	536.2	506.4	488.8	369.2	322.0	241.3 1st@1900 7	65,302 36.5%	113,528 63.5%	178,830	17,367	0.450	45.7%	66.4%	101.5%	10,297	30.88	13.89
Oct 11	724.9	9.269	679.1	517.1	472.7	313.3 2nd@1700	80,151 36.1%	141,737 63.9%	221,888	19,634	0.432	41.9%	28.8%	80'.26	11,301	36.92	15.96
Sep 11	932.6	900.2	861.2	. 269	640.5	499.5	95,239 38.9%	149,691 61.1%	244,930	21,344	0.536	36.0%	48.1%	67.2%	11,475	43.70	23.40
Aug 11	989.0	946.0	923.4	702.6	648.7	525.4 24th@1700	124,346 39.0%	194,436 61.0%	318,782	21,033	0.531	44.2%	62.1%	83.1%	15,156	47.02	24.98
Jul 11	925.0	890.9	877.3	663.8	622.2	427.2 2nd@1600 2	102,343 35.7%	184,649 64.3%	286,992	20,916	0.462	42.5%	59.2%	92:0%	13,721	44.22	20.42
, 11 nut	864.6	693.5	828.5	510.6	528.2	477.1 27th@1700 2	79,772 32.6%	164,718 67.4%	244,490	18,596	0.552	38.7%	63.4%	70.2%	13,147	46.49	25.66
May 11	648.4	599.4	595.3	411.0	387.5	313.3 27th@1700   2	72,359	130,493	202,852	17,091	ith. 0.483	42.9%	%9:79	88.7%	11,869	37.94	18.33
Apr 11	592.6	571.4	541.9	381.8	352.4	287.3	70,975 36.7%	122,533 63.3%	193,508	16,374	All load factors are calculated based on 730 hours per month 0.483 0.501 0.447 0.485	44.7%	69.4%	92.3%	11,818	36.19	17.55
Mar 11	538.4	516.7	484.6	362.0	317.8	240.7 31st@2000	64,411 37.9%	105,687 62.1%	170,098	15,806	1 based on 730 0.447	43.3%	64.4%	%8'96	10,762	34.07	15.23
Feb 11	543.5	493.3	529.2	347.8	369.6	272.5 3rd@0800	57,869	113,312 66.2%	171,181	16,113	s are calculated 0.501	43.1%	63.4%	86.1%	10,624	33.73	16.91
Jan 11	524.7	468.5	506.8	316.8	333.5	253.2 5th@0800	60,292	126,643 67.7%	186,935	15,911	All load factor 0.483	48.8%	76.8%	101.1%	11,749	32.98	15.91
_ _	(MM)														ES		(V)
	SUMMATION IND MAX (MW)	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)

On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F & All Weekends

TOU Periods - All Months:



## Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* General Service E-32 \*\*\* 101 - 400 kW

ANNUAL	3on 1,126.2	1,085.3	1,081.9	921.8	863.2	619.6	1,193,783 35.8%	2,136,590 64.2%	3,330,373	son 4,489	0.550	33.8%	41.2%	78.6%	61,846	193.18	106.45	
WINTER A	Summation ind Max by Season 1,126.2 844.9	774.3	828.9	Class Peak by Season 1.8	664.6	Coincident Peak by Season 619.6 504.8	Energy Summation by Season 165,897 527,886 1,1 36.3% 35.3%	966,563 64.7%	1,494,449	Customer Averages by Season 4,482 4,495	Seasonal Factors	40.4%	51.3%	75.3%	Seasonal Averages	176.48	101.81	
SUMMER W	Summation in 1,126.2	1,085.3	1,081.9	Class Pe	863.2	Coincident 619.6	Energy Sumr 665,897 36.3%	1,170,027 63.7%	1,835,924	Customer Ave	Seasor 0.550	37.2%	45.5%	86.6%	Season 68,262	209.87	111.10	
Dec 11	775.9	698.0	760.2	531.3	588.7	453.1 7th@0800	88,648 33.3%	177,243 66.7%	265,891	4,465	0.584	46.9%	61.9%	80.4%	59,550	173.77	101.48	
Nov 11	742.0	716.4	633.9	561.1	517.2	390 1 1st@1900 7	87,184 36.5%	151,754 63.5%	238,938	4,461	0.526	44.1%	28.3%	83.9%	53,562	166.33	87.45	
Oct 11	874.0	840.2	842.3	691.8	664.3	402.5 2nd@1700 1	98,370 35.8%	176,079 64.2%	274,449	4,476	0.461	43.0%	54.3%	93.4%	61,316	195.26	89.92	
Sep 11	973.7	957.9	924.4	816.2	764.0	619.6 1st@1700 2	110,413 39.0%	172,795 61.0%	283,208	4,480	0.636	39.8%	47.5%	62.6%	63,216	217.34	138.30	
Aug 11	1,126.2	1,085.3	1,081.9	921.8	863.2	435.5 24th@1700 1	142,253 38.7%	225,562 61.3%	367,815	4,490	0.387	44.7%	54.7%	115.7%	81,919	250.83	66.96	
Jul 11	902.9	879.2	871.3	720.1	677.4	483.8 2nd@1600 2	113,095 34.8%	212,227 65.2%	325,322	4,488	0.536	49.4%	61.9%	92.1%	72,487	201.18	107.80	
Jun 11	936.6	794.4	894.5	608.3	637.7	573.8 27th@1700 2	100,094 32.6%	207,039 67.4%	307,133	4,465	0.613	44.9%	%0.99	73.3%	68,787	209.76	128.51	
May 11	831.0	794.2	787.8	619.2	576.2	472.2 27th@1700 27	101,672 36.6%	176,325 63.4%	277,997	4,495	n. 0.568	45.8%	61.5%	80.6%	61,846	184.87	105.05	
Apr 11	789.6	770.9	748.2	634.7	607.8	497.9 1st@1800 27	99,885 37.1%	169,334 62.9%	269,219	4,473	hours per mont 0.631	46.7%	58.1%	74.1%	60,188	176.52	111.31	
Mar 11	801.2	774.3	746.9	6.609	558.5	426.2 31st@2000 1	91,701	150,166 62.1%	241,867	4,518	based on 730 p	41.4%	54.3%	77.7%	53,534	177.33	94.33	
Feb 11	844.9	765.8	828.9	602.8	664.6	504.8 3rd@0800 3	80,735 34.2%	155,292 65.8%	236,027	4,529	are calculated 0.597	38.3%	48.6%	64.1%	52,115	186.54	111.46	
Jan 11	806.8	714.2	790.4	551.9	602.9	474.0 5th@0800 3	79,732 32.9%	162,775 67.1%	242,507	4,522	All load factors are calculated based on 730 hours per month. 0.587 0.597 0.532 0.531	41.2%	54.8%	70.1%	53,628	178.42	104.82	
<b>.</b>	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	GUSTOMER AVERAGES Energy Use (KWh)	Ind. Max Demand (kW)	Coincident Demand (kW)	

#### \*\*\* General Service E-32 \*\*\* 401-999 kW

ANNUAL	ason 634.6	624.2	537.3		451.2			34.1%	1,523,556	2,311,606	3son 882	0 609	41.6%	50.7%	85.0%	218 751	560 88	363.49
WINTER (Nov-Apr)	Summation Ind Max by Season 634.6 484.6	473.8	466.1	Class Peak by Season	373.7	Coincident Peak by Season 386.4 318.9	Energy Summation by Season 114,414 373,636 7	34.470	65.6%	1,085,424	Customer Averages by Season	Seasonal Factors	51.1%	63.5%	82.2%	Seasonal Averages	515 061	337.51
SUMMER (May-Oct)	Summation 634.6	624.2	537.3	Class P	451.2	Coincident	Energy Sum 414,414	0.0.0%	66.2%	1,226,182	Customer Av	Seaso 0.6091	44.1%	53.8%	90.1%	Season 235,939	606.71	389.47
Dec 11	453.3	430.7	442.7	346 5	352.1	301.3	66,971	134 603	66.8%	201,574	912	0.665	80.9%	78.4%	91.6%	221,024	497.09	330.37
Nov 11	447.9	433.3	430.8	374.8	357.3	294.0 1st@1900	1 5	112 430	64.6%	174,015	893	0.656	53.2%	63.6%	81.1%	194,866	501.54	329.23
Oct 11	496.9	486.5	483.6	418.5	409.2	273.7 2nd@1700	-	122 516	66.1%	185,322	865	0.551	51.1%	%2.09	92.8%	214,245	574.45	316.42
Sep 11	523.4	514.8	509.2	448.1	436.5	374.3 1st@1700 2		113.785	63.8%	178,272	842	0.715	46.7%	54.5%	65.2%	211,724	621.62	444.54
Aug 11	550.7	542.0	537.3	466.5	451.2	386.4 24th@1700	1 1	149.170	63.7%	234,196	849	0.702	58.3%	68.8%	83.0%	275,849	648.63	455.12
Jul 11	634.6	624.2	527.2	520.5	426.4	310.6 2nd@1600 2-	1 1	142,945	%0.79	213,342	871	0.489	46.0%	56.2%	94.1%	244,939	728.63	356.60
Jun 11	452.0	471.0	531.0	397.3	423.9	371.2 27th@1700 2		149,842	%6.89	217,430	880	0.821	65.9%	70.3%	80.2%	247,080	513.59	421.82
May 11	493.0	453.5	483.6	377.0	382.1	305.0 h@1700		133,511	%9.79	197,620	891	h. 0.619	54.9%	70.8%	88.8%	221,796	553.31	342.31
Apr 11	484.6	473.8	466.1	390.1	373.7	317.2 1st@1800 27t	66,710	123,513	64.9%	190,223	886	hours per mont 0.655	53.8%	%8.99	82.1%	214,699	546.91	358.01
Mar 11	468.4	451.2	445.3	375.5	360.6	282.2 31st@2000 1	63,935	111,079	63.5%	175,014	868	based on 730 I 0.603	51.2%]	63.8%	85.0%	194,893	521.55	314.25
Feb 11	454.1	427.0	444.1	351.6	366.1	318.9 3rd@0800 3	57,237	110,976	%0.99	168,213	888	are calculated 0.702	20.7%	62.9%	72.3%	189,429	511.35	359.12
Jan 11	464.3	428.6	453.3	340.5	350.0	303.0 5th@0800	57,206 32.4%	119,179	%9′29	176,385	206	All load factors are calculated based on 730 hours per month.  0.653 0.702 0.603 0.655	25.0%	%0.69	79.7%	194,471	511.90	334.07
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak Weighted	Off-Peak Weighted	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak	%	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (KW)

TOU Periods - All Months: On-Peak Off-Peak 9 am 9 pm, M-F & All Weekends

\*\*\* General Service E-32 \*\*\* 1001+ kW

ANNUAL		son 271.3	266.5	263.8	234.5	230.5	221.4	422,730 33.1%	853,183 66.9%	1,275,913	155	0.816	53.7%	62.1%	82.3%	682,625	1,305.31	953.58
WINTER /	Н	Summation Ind Max by Season 271.3 191.5	179.6	185.8	Class Peak by Season 4.5	150.7	Coincident Peak by Season 221.4 141.8	Energy Summation by Season 32,699 190,031 4 32.7% 33.7%	373,392 66.3%	563,423	Customer Averages by Season 170 141	Seasonal Factors	67.2%	82.6%	106.4%	Seasonal Averages	1,206.94	910.14
SUMMER	H	Summation 271.3	266.5	263.8	Class Pt 234.5	230.5	Coincident 221.4	Energy Sum 232,699 32.7%	479,791 67.3%	712,490	Customer Av	Seasc 0.816	80.0%	69.4%	92.0%	Seasol 696,939	1,403.69	997.01
	Dec 11	151.9	145.2	148.7	123.1	122.8	120.9 7th@0800	30,752	63,186 67.3%	93,938	135	0.796	84.7%	104.6%	106.4%	695,837	1,124.91	895.56
	Nov 11	191.5	163.1	185.8	142.0	137.2	127.5 1st@1900 7	30,064 34.5%	57,097 65.5%	87,161	142	0.666	62.4%	84.1%	93.6%	613,810	1,348.45	897.89
	Oct 11	221.1	216.7	215.6	191.3	187.7	145.8 2nd@1700	33,911	69,574 67.2%	103,485	167	0.659	64.1%	74.1%	97.2%	619,671	1,324.03	873.05
	Sep 11	268.9	265.6	262.0	233.3	212.7	221.4 1st@1700 2	38,678 35.2%	71,333 64.8%	110,011	190	0.823	26.0%	64.6%	68.1%	579,005	1,415.23	1,165.26
	Aug 11	271.3	266.5	263.8	234.5	230.5	220.9 24th@1700	56,111 35.1%	103,655 64.9%	159,766	185	0.814	80.7%	93.3%	99.1%	863,600	1,466.42	1,194.05
1001+ kW	Jul 11	267.4	256.1	261.4	217.6	213.3	176.9 2nd@1600 2	41,236	87,094 67.9%	128,330	177	0.662	65.7%	80.8%	99.4%	725,028	1,510.79	999.44
	Jun 11	221.1	197.0	219.4	167.9	186.7	141.8 27th@1700 2	33,854	80,292 70.3%	114,146	158	0.641	70.7%	83.8%	110.3%	722,443	1,399.35	897.47
	May 11	188.1	169.5	185.1	144.5	153.0	122.8 27th@1700 2	28,909	67,843 70.1%	96,752	144	nth. 0.653	70.5%	%9:98	107.9%	671,889	1,306.31	852.78
	Apr 11	184.8	179.6	179.6	155.7	150.7	141.8 1st@1800	32,687 33.9%	63,630 66.1%	96,317	147	All load factors are calculated based on 730 hours per month.  0.775 0.808 0.727 0.767	71.4%	84.7%	93.0%	655,218	1,257.33	964.63
	Mar 11	169.3	166.7	162.0	146.1	138.8	123.1 31st@2000	40,676 35.5%	73,907 64.5%	114,583	142	1 based on 730 0.727	92.7%	107.4%	127.5%	806,923	1,192.23	866.90
	Feb 11	162.7	156.1	159.7	130.7	132.8	131.5 3rd@0800	26,397	52,862 66.7%	79,259	139	s are calculated 0.808	%2'99	81.7%	82.6%	570,209	1,170.39	946.04
	Jan 11	158.5	149.4	154.5	126.8	125.3	122.8 5th@0800	29,455 32.0%	62,710 68.0%	92,165	138	All load factor 0.775	79.7%	99.5%	102.8%	667,862	1,148.33	889.86
		SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak Weighted	Off-Peak Weighted	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)

TOU Periods - All Months:

Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* Total General Service E-30, E-32 \*\*\*

SUMMER WINTER ANNUAL (May-Oct) (Nov-Apr)	Summation ind Max by Season 3,744.2 2,768.1 3,744.2	3,600.1 2,632.6 3,600.1	3,551.8 2,688.5 3,551.8	Class Peak by Season 2,791.3 1,949.0 2,791.3	2,298.2 1,964.4 2,298.2	Coincident Peak by Season 1,998.2 1,998.2	Energy Summation by Season 2,145,117 1,711,139 3,856,256 35.6% 34.8% 35.3%	3,874,161 3,199,330 7,073,491 64.4% 65.2% 64.7%	6,019,278 4,910,469 10,929,747	Customer Averages by Season 122,513 122,336 122,424	Seasonal Factors 0.534 0.539 0.534	36.7% 40.5% 33.3%	49.2% 57.1% 44.7%	83.7% 84.4% 76.0%	Seasonal Averages 8,189 6,690 7,439	27.15 22.19 24.67	13.94 11.14 12.54
Dec 11	2,761.1	2,447.7	2,661.8	1,753.9	1,736.6	1,328.0 7th@0800	292,626 33.3%	587,291 66.7%	879,917	123,123	0.481	43.7%	68.7%	%8:06	7,147	22.43	10.79
Nov 11	2,605.8	2,436.7	2,426.5	1,749.7	1,462.7	1,241.1 1st@1900 7tl	281,110 36.0%	498,915 64.0%	780,025	122,889	0.476	41.0%	61.1%	86.1%	6,347	21.20	10.10
Oct 11	3,057.8	2,929.3	2,901.1	2,228.4	1,863.3	1,330.9 2nd@1700 1s	316,174 35.4%	577,654 64.6%	893,828	122,758	0.435	40.0%	54.9%	92.0%	7,281	24.91	10.84
Sep 11	3,531.3	3,414.5	3,290.4	2,645.8	2,156.7	1,998.2 1st@1700 2n	353,466 38.2%	571,596 61.8%	925,062	122,691	0.566	35.9%	47.9%	63.4%	7,540	28.78	16.29
Aug 11   8	3,744.2	3,600.1	3,551.8	2,791.3	2,298.2	1,910.7 24th@1700 1s	466,750 38.1%	756,780 61.9%	1,223,530	122,622	0.510	44.8%	%0:09	87.7%	9,978	30.53	15.58
Jul 11	3,521.9	3,369.7	3,276.5	2,255.8	1,868.2	1,641.5 2nd@1600 24	373,848 34.7%	704,466 65.3%	1,078,314	122,367	0.466	41.9%	65.5%	%0:06	8,812	28.78	13.41
Jun 11	3,289.6	2,856.5	3,185.6	2,185.0	2,151.7	1,925.1 27th@1700 2n	325,084 32.2%	684,383 67.8%	1,009,467	122,387	0.585	42.0%	63.3%	71.8%	8,248	26.88	15.73
May 11	2,814.5	2,614.5	2,641.1	1,854.5	1,608.2	443.6	309,796 34.8%	579,281 65.2%	720'688	122,251	0.513	43.3%	65.7%	84.4%	7,273	23.02	11.81
Apr 11   N	2,739.4	2,632.6	2,564.1	1,873.0	1,511.3	1,492.8 1,	312,952 36.3%	548,408 63.7%	861,360	122,013	ours per month 0.545	43.1%	63.0%	79.0%	7,060	22.45	12.23
Mar 11	2,699.2	2,574.5	2,468.4	1,839.1	1,589.4		302,452 37.3%	508,028 62.7%	810,480	122,202	ased on 730 h 0.471	41.1%	60.4%	87.4%	6,632	22.09	10.40
Feb 11	2,768.1	2,500.3	2,688.5	1,949.0	1,964.4	1,467.4 1,270.5 3rd@0800 31st@2000	258,132 33.8%	505,391 66.2%	763,523	122,018	are calculated to 0.530	37.8%	53.2%	71.3%	6,257	22.69	12.03
Jan 11 F	2,713.2	2,399.0	2,636.0	1,775.5	1,780.7	1,376.0 5th@0800 3rc	263,867 32.4%	551,297 67.6%	815,164	121,770	All load factors are calculated based on 730 hours per month.  0.507 0.530 0.471 0.545	41.2%	62.7%	81.2%	6,694	22.28	11.30
	SUMMATION IND MAX (MW)	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (ANV) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (KVVh)	Ind. Max Demand (kW)	Coincident Demand (kW)

TOU Periods - All Months: On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F & All Weekends

\*\*\* General Service E-32TOU\*\*\* 0 - 20 kW

ANNUAL	on 1.2	1.0	1.2	0.7	0.8	0.6	1,070 26.5%	2,965 73.5%	4,035	on 147	0.496	38.1%	29.7%	115.2%	2,287	6.75	2.60	
WINTER AN (Nov-Apr)	Sunmation Ind Max by Season	6.0	1.0	Class Peak by Season 0.7 0.7	0.7	Coincident Peak by Season	Energy Summation by Season 547 523 27.6% 25.5%	1,532 74.5%	2,055	Customer Averages by Season 141 153	Seasonal Factors	46.3%	%0.99	156.4%	Seasonal Averages	6.10	2.61	
SUMMER WIR (May-Oct) (No	Summation Inc	1.0	1.2	Class Pea 0.7	0.8	Coincident P	Energy Summ 547 27.6%	1,433 72.4%	1,980	Customer Ave	Season 0.496	37.4%	28.6%	113.0%	Seasona 2,341	7.41	2.59	
Dec 11	6.0	0.8	0.9	0.6	9.0	0.3 7th@0800	93	291 75.7%	384	158	0.335	28.8%	81.5%	175.3%	2,430	5.67	1.90	
Nov 11 E	0.9	0.8	0.8	9.0	9.0	0.5 1st@1900 7tt	85 26.4%	237 73.6%	322	148	0.567	20.0%	73.1%	88.2%	2,176	5.96	3.38	
Oct 11	6.0	0.8	6.0	0.6	9:0	0.2 2nd@1700 1s	70 25.3%	205 74.7%	275	134	0.225	42.3%	61.4%	188.4%	2,052	6.65	1.49	
Sep 11	1.0	1:0	1.0	0.7	0.7	0.3 1st@1700 2r	84 27.8%	220 72.2%	304	143	0.288	40.0%	57.4%	138.8%	2,126	7.28	2.10	
Aug 11	1.0	0.9	1.0	0.7	0.7	0.4 24th@1700 1	101	249 71.3%	320	137	0.398	47.7%	66.2%	119.9%	2,555	7.34	2.92	
Jul 11	1.1	1.0	1:1	0.7	0.7	0.4 2nd@1600 24	98 26.7%	268 73.3%	366	143	0.356	44.6%	67.0%	125.3%	2,559	7.86	2.80	
Jun 11	1.2	0.9	1.2	2.0	0.8	0.6 27th@1700 2r	108	260 70.7%	368	147	0.496	41.7%	65.4%	84.0%	2,503	8.22	4.08	
May 11	1.0	0.8	1.0	9.0	0.7	0.3	87 27.4%	230 72.6%	317	141	h. 0.299	43.2%	65.4%	144.7%	2,248	7.13	2.13	
Apr 11	1.0	0.8	1.0	0.6	0.7	0.3 1st@1800 27th	87 26.3%	243 73.7%	330	149	hours per mont 0.302	45.6%	63.8%	150.7%	2,215	99.9	2.01	
Mar 11	1.0	6.0	1.0	0.7	0.7	0.6 31st@2000 1s	97 27.3%	258 72.7%	355	156	based on 730 t 0.592	47.9%	68.4%	81.1%	2,276	6.50	3.85	
Feb 11	1.0	0.8	1.0	0.6	0.7	0.4 3rd@0800 31	81 24.6%	246 75.4%	327	156	are calculated 0.401	44.9%	63.8%	112.0%	2,096	6.39	2.56	
Jan 11	0.8	0.7	0.8	0.5	9:0	0.3 5th@0800 3	80	257 76.2%	337	153	All load factors are calculated based on 730 hours per month.  0.363 0.401 0.592 0.302	55.8%	82.6%	153.9%	2,203	5.40	1.96	
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW)	Öff-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (KWh)	Ind. Max Demand (kW)	Coincident Demand (kW)	

TOU Periods - All Months: On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F & All Weekends

\*\*\* General Service E-32TOU\*\*\* 20 - 100 kW

ANNUAL	on 9.7	8.7	9.3	6.1	6.0	5.7	on 11,340 31.4%	24,791 68.6%	36,131	170	0.528	42.7%	67.6%	93.7%	17,729	45.41	22.11	
WINTER A	Max by Seas 7.4	6.3	7.3	Class Peak by Season 6.1 4.6	4.7	Coincident Peak by Season 5.1 3.9	Energy Summation by Season 6,321 5,019 32.0% 30.6%	11,367 69.4%	16,386	rages by Seas	Seasonal Factors	50.7%	78.8%	129.0%	Seasonal Averages 18 16,610	40.85	19.99	
SUMMER WII (May-Oct) (No	Summation ind Max by Season 9.7	8.7	9.3	Class Pea 6.1	6.0	Coincident P	Energy Summ 6,321 32.0%	13,424 68.0%	19,745	Customer Averages by Season 175 164	Season 0.528	46.7%	73.9%	102.5%	Seasona 18,848	49.98	24.23	
Dec 11	6.3	5.8	6.1	4.2	4.2	2.9 7th@0800	857 29.9%	2,010	2,867	159	0.459	62.2%	94.2%	135.4%	18,031	39.73	18.24	
Nov 11	6.3	5.9	6.0]	4.5	3.9	3.9 1st@1900 7t	805 32.2%	1,696	2,501	166	0.614	54.0%	76.3%	87.8%	15,066	38.24	23.49	
Oct 11   1	7.6	7.1	7.5	5.1	5.0	3.4 2nd@1700 1s	896 31.1%	1,989 68.9%	2,885	172	0.446	51.9%	77.2%	116.2%	16,773	44.29	19.77	
Sep 11	9.7	8.7	9.3	6.1	6.0	4.5 1st@1700 2r	1,057	2,057 66.0%	3,114	182	0.466	44.2%	[%6:69	94.8%	17,110	53.08	24.73	
Aug 11	6.3	8.4	9.1	5.8	5.7	4.5 24th@1700 1s	1,275	2,447	3,722	169	0.482	54.6%	87.2%	113.3%	22,024	55.29	26.63	
Jul 11	9.3	8.3	9.2	5.7	5.9	4.4 2nd@1600 24	1,140	2,523 68.9%	3,663	177	0.471	53.7%	85.5%	114.0%	20,695	52.74	24.86]	
Jun 11	8.7	7.4	8.4	5.3	5.3	5.1 27th@1700 2r	1,039	2,294	3,333	172	0.588	52.6%	86.2%	89.5%	19,378	50.45	29.65	
May 11	7.8	7.2	7.6	4.4	4.6	3.5 27th@1700 27	914	2,114 69.8%	3,028	1771	h. 0.449	53.2%	91.0%	118.5%	17,107	44.02	19.77	
Apr 11	7.0	6.3	6.8	4.3	4.1	3.4 1st@1800 27	879 31.7%	1,897	2,776	166	ours per monti 0.489]	54.6%	88.2%	111.8%	16,723	41.92	20.48	
Mar 11	6.5	6.0	6.3	4.1	3.7	3.5 31st@2000 1s	823 32.8%	1,689	2,512	162	based on 730 h 0.539	23.0%	84.4%	98.3%	15,506	40.09	21.60	
Feb 11	6.8	6.3	6.7	4.6	4.6	3.1 3rd@0800 31	755 29.8%	1,780	2,535	162	are calculated i 0.456	51.0%	75.3%	112.0%	15,648	42.00	19.14	
Jan 11	7.4	6.2	7.3	4.6	4.7	2.9 5th@0800 3r	899	2,296	3,195	171	All load factors are calculated based on 730 hours per month.  0.393 0.456 0.539 0.489	29.4%	92.2%	150.9%	18,684	43.12	16.96	
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (KWh)	Ind. Max Demand (kW)	Coincident Demand (kW)	

\*\*\* General Service E-32TOU\*\*\* 101 - 400 kW

ANNOAL	son 14.0	13.6	13.8	11.2	10.8	nn 10.6	30n 22,376 31.7%	48,164 68.3%	70,540	50n 74	0.758	57.6%	72.1%	94.7%	79,260	165.33	99.08	
WINTER A	Summation ind Max by Season 14.0 12.0	11.3	11.8	Class Peak by Season 1.2 8.5	9.1	Coincident Peak by Season 10.6 7.1	Summation by Season 9,760 31.3%	21,372 68.7%	31,132	Customer Averages by Season 74 75	Seasonal Factors	59.3%	78.5%	122.5%	Seasonal Averages	153.03	86.34	
SUMMER W (May-Oct) (No	Summation in	13.6	13.8	Class Pe	10.8	Coincident 10.6	Energy Sumn 12,617 32.0%	26,791 68.0%	39,408	Customer Ave	Seasor 0.758	64.3%	80.5%	105.9%	Season: 89,098	177.64	111.83	
Dec 11	10.9	9.8	10.7	7.8	8.6	5.8 7th@0800	1,773	4,007	5,780	73	0.532	72.6%	92.5%	136.5%	79,178	149.33	79.45	
Nov 11	10.9	10.1	10.5	8.1	7.7	6.2 1st@1900 7t	1,683	3,503 67.5%	5,186	75	0.569	65.2%	87.7%	114.6%	69,147	145.28	82.67	
Oct 11	11.9	11.6	11.5	9.3	8.8	6.9 2nd@1700 1s	1,772	3,928	5,700	73	0.582	%6:59	83.5%	113.2%	78,082	162.43	94.52	
Sep 11	13.3	13.0	12.8	10.7	10.1	7.5 1st@1700 2n	1,962 33.8%	3,846 66.2%	5,808	72	0.566	%0:09	74.5%	106.1%	80,667	184.12	104.17	
Aug 11	14.0	13.6	13.7	11.2	10.8	8.5 24th@1700 1s	2,705 33.9%	5,275 66.1%	7,980	74	0.608	78.2%	97.8%	128.6%	107,838	188.95	114.86	
Jul 11	13.9	13.2	13.8	11.0	10.7	8.5 2nd@1600 24	2,204	4,968	7,172	74	0.610	70.5%	89.4%	115.6%	96,919	188.35	114.86	
Jun 11	13.2	12.2	12.9	10.7	10.2	10.6 27th@1700 2r	1,983	4,207 68.0%	6,190	73	0.801	64.1%	79.6%	80.0%	84,795	181.27	145.21	
May 11	12.2	11.0	12.1	9.3	9.3	7.4	1,991	4,567 69.6%	6,558	76	0.606	73.5%	96.2%	121.4%	86,289	160.75	97.37	
Apr 11	11.2	10.5	10.9	8.3	8.1	7.1 1st@1800   27th	1,628 31.6%	3,527 68.4%	5,155	71	ours per montl 0.637	63.3%	84.6%	89.5%	72,606	157.05	100.00	
Mar 11	11.8	11.3	11.4	8.5	8.2	7.1 31st@2000 1s	1,653 33.2%	3,318 66.8%	4,971	76	based on 730 t	92.5%	79.9%	95.9%	65,408	155.74	93.42	
Feb 11	11.9	11.0	11.7	8.3	9:0	6.3 3rd@0800 31	1,419	3,172 69.1%	4,591	75	are calculated   0.528	52.7%	%8:69	%8'66	61,213	159.07	84.00	
Jan 11	12.0	10.9	11.8	8.3	9.1	6.2 5th@0800 3	1,604 29.4%	3,845	5,449	62	All load factors are calculated based on 730 hours per month.  0.517 0.528 0.600 0.637	62.3%	82.4%	120.4%	68,975	151.69	78.48	
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (KWh)	Ind. Max Demand (kW)	Coincident Demand (kW)	•

TOU Periods - All Months: On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F & All Weekends

On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F& All Weekends

TOU Periods - All Months:

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## Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* General Service E-32TOU\*\*\* 401-999 kW

ANNUAL	ton 26.0	23.2	25.7	19.5	20.6	n 14.6	on 32,881 31.6%	71,024 68.4%	103,905	34 34	0.571	45.6%	57.5%	134.8%	254,414	601.12	313.49
WINTER A	Summation Ind Max by Season 25.6 26.0	22.9	25.7	Class Peak by Season 9.1 19.5	20.6	Coincident Peak by Season 14.6 12.5	Summation by Season 15,520	32,946 68.0%	48,466	Customer Averages by Season 34 35	Seasonal Factors 0.481	42.6%	53.6%	119.0%	Seasonal Averages	577.94	292.09
SUMMER W (May-Oct) (No	Summation in 25.6	23.2	23.7	Class Pe	20.2	Coincident 14.6	Energy Sumr 17,361 31.3%	38,078 68.7%	55,439	Customer Av	Seasor 0.571	49.5%	62.8%	143.8%	Season 278,096	624.30	334.89
Dec 11	26.0	22.9	25.7	19.2	20.6	9.3 7th@0800	3,292	7,206	10,498	40	0.358	55.3%	%2'69	154.6%	262,450	650.02	232.50
Nov 11	23.6	21.2	23.2	19.5	19.5	12.5 1st@1900 7	3,18 <b>4</b> 33.1%	6,426	9,610	14	0.529	%2'99	. 67.5%	105.3%	234,390	576.64	304.88
Oct 11	24.1	21.5	23.7	19.1	20.2	8.6 2nd@1700 1s	3,111	6,897 68.9%	10,008	39	0.357	26.9%	68.0%	159.4%	256,615	617.49	220.51
Sep 11	22.4	20.1	22.0	18.1	18.7	11.8 1st@1700 2n	2,865	5,883 67.2%	8,748	36	0.527	53.5%	64.0%	101.6%	243,000	622.53	327.78
Aug 11	25.6	23.2	22.0	18.4	17.9	12.3 24th@1700 15	2,397	4,872 67.0%	7,269	33	0.481	38.9%	54.3%	81.0%	220,273	775.20	372.73
Jul 11	18.2	16.6	17.8	14.2	14.8	8.8 2nd@1600 24	2,979 30.0%	6,952 70.0%	9,931	30	0.482	74.5%	91.8%	154.6%	331,033	608.30	293.33
Jun 11	18.5	17.0	18.2	13.9	14.6	14.6 27th@1700 2n	3,351	7,391	10,742	32	0.791	%2'62	100.6%	100.8%	335,688	576.91	456.25
May 11	16.9	15.1	16.8	12.4	13.1	10.5 @1700	2,658	6,083 69.69	8,741	31	0.621	70.8%	91.4%	114.0%	281,968	545.37	338.71
Apr 11	16.7	14.9	16.4	12.7	13.1	10.2 1st@1800   27th	3,081	6,602 68.2%	689	32	ours per monti 0.610	79.3%	101.0%	130.0%	302,594	522.94	318.75
Mar 11	18.8	16.8	18.1	14.7	14.8	9.4 31st@2000 1s	3,058	6,161 66.8%	9,219	32	0.500	67.2%	85.6%	134.3%	288,094	587.67	293.75
Feb 11	18.6	16.1	18.5	13.7	14.8	9.2 3rd@0800 31	2,051	4,535 68.9%	6,586	31	are calculated l 0.494	48.4%	61.0%	98.1%	212,452	88.009	296.77
Jan 11	18.0	15.2	17.7	12.7	14.0	10.4 5th@0800 3	853	2,017	2,870	34	All load factors are calculated based on 730 hours per month.  0.578 0.494 0.500 0.610	21.8%	28.1%	37.8%	84,412	529.50	305.88
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (KWh)	Ind. Max Demand (kW)	Coincident Demand (kW)

\*\*\* General Service E-32TOU\*\*\* 1001 + kW

ANNUAL	son 37.3	36.6	36.8	32.9	32.2	28.5	53,065 30.8%	119,253 69.2%	172,318	son 17	0.765	52.8%	59.8%	85.9%	842,663	1,508.88	1,059.75
WINTER A	Summation Ind Max by Season 37.3 22.9	20.4	22.8	Class Peak by Season 2.9 18.2	18.5	Coincident Peak by Season 28.5 16.3	Energy Summation by Season 30,789 22,276 30.7% 30.9%	49,856 69.1%	72,132	Customer Averages by Season 18 16	Seasonal Factors	71.8%	88.8%	101.0%	Seasonal Averages	1,377.25	960.01
SUMMER W	Summation I	36.6	36.8	Class Pe	32.2	Coincident 28.5	Energy Sum 30,789 30,7%	69,397 69.3%	100,186	Customer Av	Seaso 0.765	61.4%	%9.69	%6:66	Season 908,060	1,640.51	1,159.49
Dec 11	22.9	20.1	22.8	18.2	18.5	16.3 7th@0800	4,417	9,694	14,111	18	0.711	84.3%	104.3%	118.6%	783,944	1,274.13	905.56
Nov 11	19.7	17.2	19.2	14.7	15.9	14.3 1st@1900 7t	3,450	7,708	11,158	15	0.724	77.4%	%0.96	106.9%	743,867	1,315.88	953.33
Oct 11	23.4	21.0	22.9	19.4	19.8	15.9 2nd@1700	3,734	9,375 71.5%	13,109	17	0.680	76.8%	%8:06	112.9%	771,118	1,375.22	935.29
Sep 11	31.5	28.7	31.1	25.2	26.1	24.4 1st@1700 2a	4,540 30.7%	10,229	14,769	19	0.775	64.3%	77.4%	82.9%	777,316	1,656.24	1,284.21
Aug 11	37.3	36.6	36.8	32.9	32.2	28.5 24th@1700 1	7,397	15,422 67.6%	22,819	21	0.765	83.9%	95.1%	109.7%	1,086,619	1,774.14	1,357.14
Jul 11	36.2	35.3	35.7	30.2	30.2	22.9 2nd@1600 2	5,270	12,542 70.4%	17,812	. 19	0.632	67.4%	80.8%	106.6%	937,474	1,905.82	1,205.26
Jun 11	27.2	25.9	27.0	22.5	22.8	19.6 27th@1700 2	5,242 31.4%	11,462 68.6%	16,704	16	0.720	84.0%	100.2%	116.7%	1,044,000	1,702.32	1,225.00
May 11	25.7	24.5	25.5	21.0	21.3	17.1 27th@1700 2	4,607	10,366 69.2%	14,973	18	0.665	79.7%	%8:96	119.9%	831,833	1,429.35	950.00
Apr 11	20.4	18.6	20.1	15.9	16.2	14.6 1st@1800   2	3,871	8,690 69.2%	12,561	14	All load factors are calculated based on 730 hours per month.  0.666 0.680 0.687 0.716	84.4%	106.1%	117.9%	897,214	1,455.84	1,042.86
Mar 11	21.4	19.0	21.2	16.7	16.8	14.7 31st@2000	3,471	7,342	10,813	15	based on 730 0.687	69.2%	88.1%	100.8%	720,867	1,426.56	980.00
Feb 11	21.8	20.4	21.5	16.7	17.3	14.8 3rd@0800 3	3,602 31.1%	7,974	11,576	16	are calculated 0.680	72.8%	91.7%	107.1%	723,500	1,360.70	925.00
Jan 11	21.5	18.8	21.2	15.5	16.7	14.3 5th@0800	3,466	8,447 70.9%	11,913	15	All load factors 0.666	76.1%	%8′.26	114.1%	794,200	1,430.39	953.33
A Company	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)

TOU Periods - All Months: On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F & All Weekends

TOU Periods - All Moriths: On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F & All Weekends

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Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* Total General Service E-32TOU\*\*\*

ANNUAL.	on 87.2	82.7	82.6	65.9	61.6	54.2	on 120,732 31.2%	266,197 68.8%	386,929	on 442	0.622	50.7%	67.0%	98.2%	73,005	152.39	91.05
WINTER AI	Summation Ind Max by Season 87.2 67.0	59.4	66.3	Class Peak by Season 5.9 48.0	50.0	Coincident Peak by Season 54.2 37.4	Energy Summation by Season 67,635 53,097 1 31.2% 31.2%	117,074 68.8%	170,171	Customer Averages by Season 441	Seasonal Factors	57.9%	77.7%	112.3%	Seasonal Averages	136.94	79.33
SUMMER 'W	Summation   87.2	82.7	82.6	Class Pe	61.6	Coincident 54.2	Energy Sum 67,635 31.2%	149,123 68.8%	216,758	Customer Av 441	Seaso 0.622	26.8%	75.1%	110.0%	Seasor 81,950	167.84	102.76
Dec 11	67.0	59.4	66.3	48.0	50.0	34.6 7th@0800	10,432	23,208	33,640	448	0.516	68.7%	92.2%	133.2%	75,089	149.66	77.23
Nov 11	61.5	55.2	59.8	47.6	45.5	37.4 1st@1900 7t	9,207	19,570 68.0%	28,777	445	0.608	64.1%	82.8%	105.4%	64,667	138.21	84.04
Oct 11	67.8	62.0	66.5	50.4	49.6	35.0 2nd@1700 1	9,582	22,395 70.0%	31,977	435	0.516	64.6%	%6:98	125.2%	73,510	155.92	80.46
Sep 11	77.8	71.4	76.1	59.8	57.5	48.5 1st@1700 2	10,509	22,234 67.9%	32,743	452	0.623	%9'.29	75.0%	92.5%	72,440	172.21	107.30
Aug 11	87.2	82.7	82.6	629	61.6	54.2 24th@1700 1	13,874 32.9%	28,266 67.1%	42,140	434	0.622	66.2%	87.6%	106.5%	97,097	200.85	124.88
Jul 11	78.9	74.4	77.6	61.1	58.6	45.0 2nd@1600 24	11,691 30.0%	27,253	38,944	443	0.571	%2'29	87.3%	118.6%	87,910	178.01	101.58
Jun 11	9:89.	63.4	67.8	53.1	53.0	50.5 27th@1700 2r	11,722 31.4%	25,615 68.6%	37,337	440	0.734	74.3%	%8:96	101.3%	84,857	156.40	114.77
May 11	63.6	58.6	63.1	46.5	46.4	38.8 0@1700	10,257 30.5%	23,360	33,617	443	h. 0.610	72.4%	80.66	118.7%	75,885	143.67	87.58
Apr 11	56.2	51.1	55.1	40.5	38.9	35.6 1st@1800 27th	9,547	20,958	30,505	432	hours per mont 0.633	74.3%	103.2%	117.4%	70,613	130.13	82.41
Mar 11	59.5	54.0	57.8	43.6	41.7	35.3 31st@2000 1	9,102	18,768 67.3%	27,870	441	based on 730   0.593	64.1%	87.6%	108.2%	63,197	135.03	80.05
Feb 11	60.1	54.6	59.3	41.5	42.1	33.8 3rd@0800 3	30.9%	17,707 69.1%	25,615	440	are calculated 0.562	58.4%	83.3%	103.8%	58,216	136.66	76.82
Jan 11	59.6	51.9	58.8	40.8	42.8	34.1 5th@0800 3	6,901	16,863 71.0%	23,764	452	All load factors are calculated based on 730 hours per month.  0.572 0.562 0.593 0.633	24.6%	76.1%	95.5%	52,575	131.95	75.44
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)

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\*\*\* General Service E-34 \*\*\*

ANNUAL	ason 188.0	185.8	182.9	169.0	168.4	3on 155.6	ason 301,595 32.1%	636,509	938,104	ason 35	0.828	27.0%	63.4%	76.4%	2,265,448	4,435.94	3,582.58	
WINTER (Nov-Apr)	Summation Ind Max by Season 188.0 155.3	154.8	149.3	Class Peak by Season 9.0 138.1	135.4	Coincident Peak by Season 155.6 128.2	Energy Summation by Season 165,463 136,132 3 31.8% 32.5%	282,355 67.5%	418,487	Customer Averages by Season 36 33	Seasonal Factors	61.5%	69.2%	95.4%	Seasonal Averages	4,024.54	3,341.45	
SUMMER (May-Oct) (I	Summation 188.0	185.8	182.9	Class P	168.4	Coinciden 155.6	Energy Sun 165,463 31.8%	354,154 68.2%	519,617	Customer A	Seas. 0.828	63.1%	70.2%	84.7%	Seaso 2,428,111	4,847.33	3,823.72	·
Dec 11	118.0	115.8	116.2	107.0	106.5	100.1 7th@0800	21,744	47,232 68.5%	68,976	31	0.849	80.1%	88.3%	94.4%	2,225,032	3,805.18	3,229.03	
Nov 11	124.6	123.9	117.0	109.7	106.0	102.4 1st@1900 7t	24,168 33.3%	48,411	72,579	31	0.822	79.8%	90.7%	97.1%	2,341,258	4,018.24	3,303.23	
Oct 11	152.4	150.0]	148.3	136.9	131.6	114.3 2nd@1700 1s	25,817 31.3%	56,719 68.7%	82,536	34	0.750	74.2%]	82.6%	98.9%	2,427,529	4,483.38	3,361.76	
Sep 11	173.7	172.9	169.1	158.2	153.9	154.5 1st@1700 2r	31,422	61,028	92,450	36	0.889	72.9%	80.0%	82.0%	2,568,056	4,825.52	4,291.67	Weekends
Aug 11	182.4	181.5	175.6]	166.0	163.7	155.6 24th@1700 1	32,275 34.2%	62,212 65.8%	94,487	36	0.853	71.0%	78.0%	83.2%	2,624,639	5,066.02	4,322.22	Off-Peak 9 pm - 11 am, M-F & All Weekends
Jul 11	188.0]	185.8	182.9	169.0	168.4	140.1 2nd@1600 24	28,339	62,713 68.9%	91,052	36	0.745	98:39	73.8%	89.0%	2,529,222	5,222.82	3,891.67	
Jun 11	180.4	164.5	178.8	153.3	164.3	125.5 27th@1700 2	24,439	58,908	83,347	36	0.696	63.3%	%9.69	91.0%	2,315,194	5,012.13	3,486.11	On-Peak 11 am 9 pm, M-F
May 11	161.1	152.8	157.2	141.2	139.3	129.2 0@1700	23,172	52,573 69.4%	75,745	36	th. 0.802	64.4%	73.5%	80.3%	2,104,028	4,474.13	3,588.89	Months:
Apr 11	155.3	154.8	149.3	138.1	135.4	128.2 1st@1800 27tt	21,821	44,840	66,661	36	hours per mon 0.825	58.8%	66.1%	71.2%	1,851,694	4,314.90	3,561.11	TOU Periods - All
Mar 11	149.4	148.4	139.6	133.0	128.8	124.5 31st@2000	23,629	44,930 65.5%	68,559	36	1 based on 730 0.833	62.9%	70.6%	75.4%	1,904,417	4,150.67	3,458.33	
Feb 11	129.3	127.5	127.1	80.8	112.3	109.4 3rd@0800	22,681 32.4%	47,276 67.6%	69,957	33	All load factors are calculated based on 730 hours per month:	74.1%	85.4%	87.6%	2,119,909	3,917.88	3,315.15	
Jan 11	130.0	121.5	127.8	114.0	112.8	105.0 5th@0800	22,090 30.8%	49,665	71,755	33	All load factor 0.807	75.6%	86.2%	93.6%	2,174,394	3,940.40	3,181.82	
	X (MW)														SES.		(M	
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW) On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)	

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\*\*\* General Service E-35 \*\*\*

ANNUAL	Season 309.4	287.4	308.0	on 259.3	268.6	246.5	Season 564,284 29.8%	1,327,196 70.2%	1,891,480	Season 38	0.797	%8'69	80.4%	96.5%	4,156,918	7,569.62	5,766.75	
WINTER (Nov-Apr)	Summation Ind Max by Season 309.4 299.1	273.3	296.2	Class Peak by Season 9.3 247.0	250.9	Coincident Peak by Season 246.5 227.5	Energy Summation by Season 293,961 270,323 5 29.8% 29.9%	634,910 70.1%	905,233	Customer Averages by Season 38	Seasonal Factors	69.1%	82.4%	100.2%	Seasonal Averages 5 3,988,192	7,347.25	5,615.95	
SUMMER (May-Oct)	Summatic 309.4	287.4	308.0	Class 259.3	268.6	Coincid 246.5	Energy S 293,961 29.8%	692,286	986,247	Customer 38	Se. 0.797	72.8%	83.8%	100.6%	Sea 4,325,645	7,791.99	5,917.54	
Dec 11	263.0	242.8	259.1	219.1	227.3	206.2 7th@0800	45,961 29.5%	109,607 70.5%	155,568	39	0.784	81.0%	93.8%	103.3%	3,988,923	6,744.39	5,287.18	
Nov 11	299.1	273.3	296.2	247.0	250.9	219.5 1st@1900 7	47,501 30.4%	108,938 69.6%	156,439	. 39	0.734	71.7%	85.4%	97.6%	4,011,256	7,668.70	5,628.21	
Oct 11	295.3	266.5	293.3	237.5	249.8	198.2 2nd@1700 1	45,231	114,635 71.7%	159,866	38	0.671	74.1%	87.78	110.5%	4,207,000	7,772.35	5,215.79	
Sep 11	289.9	267.9	287.6	240.8	251.5	236.8 1st@1700 2	51,735	117,107	168,842	38	0.817	79.8%	92.0%	97.7%	4,443,211	7,628.43	6,231.58	Weekends
Aug 11	309.4	287.4	308.0	259.3	268.6	228.0 24th@1700	53,117 30.9%	118,570 69.1%	171,687	38	0.737	76.0%	87.6%	103.2%	4,518,079	8,141.21	00.000,9	Off-Peak 9 pm - 11 am, M-F & All Weekends
Jul 11	308.3	277.7	306.2	246.5	261.6	223.8 2nd@1600 24	46,396 27.9%	120,022 72.1%	166,418	38	0.726	73.9%	87.2%	101.9%	4,379,421	8,113.38	5,889.47	
Jun 11	296.6	285.0	294.1	255.7	254.3	246.5 27th@1700 2	49,900 30.9%	111,527 69.1%	161,427	38	0.831	74.6%	86.5%	89.7%	4,248,079	7,805.09	6,486.84	On-Peak 11 am 9 pm, M-F
May 11	277.1	262.7	274.6	234.2	235.6	215.9 27th@1700 2	47,582 30.1%	110,425 69.9%	158,007	38	th. 0.779	78.1%	91.9%	100.3%	4,158,079	7,291.48	5,681.58	onths:
Apr 11	279.6	261.0[	277.4	236.1	236.8		43,541 29.7%	102,914	146,455	38	All load factors are calculated based on 730 hours per month.    0.744	71.7%	84.7%	%5.5%	3,854,079	7,359.06	5,528.95	TOU Periods - All M
Mar 11	277.9	256.4	271.8	231.7	234.7	210.6 210.1 31st@2000 1st@1800	48,342	108,148 69.1%	156,490	37	based on 730 0.758	77.1%	91.4%	101.8%	4,229,459	7,510.92	5,691.89	E
Feb 11	278.6	253.9	276.1	234.2	237.0	227.5 3rd@0800	44,155 29.8%	103,840 70.2%	147,995	37	s are calculated 0.817	72.8%	85.6%	89.1%	3,999,865	7,529.30	6,148.65	
Jan 11	269.0	248.4	266.5	218.0	224.0	200.2	40,823	101,463 71.3%	142,286	37	All load factors 0.744	72.4%	87.0%	97.4%	3,845,568	7,271.11	5,410.81	
	MW)																	
	SUMMATION IND MAX (MW) Non-Timed			CLASS PEAK (MW) On-Peak		ENT (MW)	(MWH)			ERS	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	or (CP) %	CUSTOMER AVERAGES Energy Use (kWh)	Ind. Max Demand (kW)	Coincident Demand (kW)	
	SUMMATIC Non-Timed	On-Peak	Off-Peak	CLASS PI On-Peak	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident	Load Fact	Load Fact	Load Factor (CP) %	CUSTOMER AVE	Ind. Max [	Coinciden	

On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F & All Weekends



# Load Research Cost of Service Data Test Year Ended December 31, 2011

\*\*\* Customer # 1 \*\*\*

					MER AN Mondondo	8	Off-Peak	On-Peak	Months:	TOU Periods - All	<u> </u>			
9,916.67 8,975.00	8,033.33	13,100.00	9,100.00	8,400.00	1,500.00	13,500.00	6,900.00	9,700.00	8,200.00	11,700.00	00.009,6	7,400.00	8,600.00	Coincident Demand (kW)
14,100.00 13,483.33	12,866.67	15,500.00	14,400.00	11,800.00	12,100.00	14,200.00	13,100.00	12,900.00	13,100.00	13,900.00	13,600.00	14,000.00	13,200.00	Ind. Max Demand (kW)
Seasonal Averages 7 6,580,500 6,203,333	Seasone 5,826,167 6	7,898,000	6,443,000	5,357,000	4,982,000	7,150,000	5,354,000	6,213,000	5,901,000	6,267,000	6,561,000	5,800,000	6,514,000	CUSTOMER AVERAGES Energy Use (kWh)
68.8% 123.2%	115.7%	82.6%	%0'.26	87.4%	455.0%	72.6%	106.3%	87.7%	%9:86	73.4%	93.6%	107.4%	103.8%	Load Factor (CP) %
58.2% 54.8%	56.2%	%8'69	61.3%	62.2%	56.4%	%0.69	26.0%	%0.99	61.7%	61.8%	66.1%	26.8%	%9'.29	Load Factor (NCP) %
58.2% 54.8%	56.2%	%8'69	61.3%	62.2%	56.4%	%0:69	26.0%	%0.99	61.7%	61.8%	98.1%	26.8%	%9′29	Load Factor (Max) %
Seasonal Factors 0.951	Season 0.951	0.845	0.632	0.712	0.124	0.951	0.527	0.752	nth. 0.626	hours per moi 0.842	d based on 730 0.706	All load factors are calculated based on 730 hours per month.  0.652 0.529 0.706 0.842	All load factor 0.652	FACTORS Coincident Factor (CP)
Customer Averages by Season	Customer Ave		F	-	-	=	-	-	-	-	-	<del>-</del>		CUSTOMERS Monthly Count
39,483 74,440	34,957	7,898	6,443	5,357	4,982	7,150	5,354	6,213	5,901	6,267	6,561	5,800	6,514	Total
28,135 53,133 71.3% 71.4%	24,998 71.5%	5,511 69.8%	4,523 70.2%	3,985	3,490	4,947 69.2%	3,906	4,393	4,276	4,546 72.5%	4,650 70.9%	4,234	4,671	Off-Peak %
Summation by Season 11,348 21,307 28,7% 28.6%	Energy Summ 9,959 28.5%	2,387	1,920	1,372	1,492	2,203	1,448	1,820	1,625	1,721	1,911	1,566	1,843	ENERGY (MWH) On-Peak %
Coincident Peak by Season 13.5 13.5	Coincident F	13.1 7th@0800	9.1 1st@1900 7	8.4 2nd@1700	1.5 1st@1700 2	13.5 24th@1700	6.9 2nd@1600 2	9.7 27th@1700	8.2 27th@1700	11.7 1st@1800	9.6 31st@2000	7.4 3rd@0800	8.6 5th@0800	COINCIDENT (MW) System Time
15.2 15.2	14.2	15.2	14.4	11.8	12.1	14.2	13.1	12.9	13.1	13.9	13.6	14.0	13.2	Off-Peak
Class Peak by Season 4.0 15.5 15.5	Class Pea	15.5	13.8	11.7	11.9	14.0	12.4	12.6	11.1	13.8	13.4	13.0	13.1	CLASS PEAK (MW) On-Peak
15.2 15.2	14.2	15.2	14.4	11.8	12.1	14.2	13.1	12.9	13.1	13.9	13.6	14.0	13.2	Off-Peak
15.5 15.5	14.0	15.5	13.8	11.7	11.9	14.0	12.4	12.6	11.1	13.8	13.4	13.0	13.1	On-Peak
Summation Ind Max by Season 14.2 15.5	Summation In 14.2	15.5	14.4	11.8	12.1	14.2	13.1	12.9	13.1	13.9	13.6	14.0	13.2	SUMMATION IND MAX (MW) Non-Timed
WINTER ANNUAL (Nov-Apr)	SUMMER WI (May-Oct) (No	Dec 11	Nov 11	Oct 11	Sep 11	Aug 11	Jul 11	Jun 11	May 11	Apr 11	Mar 11	Feb 11	Jan 11	



\*\*\* Customer # 2 \*\*\*

Colncident Demand (kW)   Colncident Demand (	27.1 32.1 31.9 27.1 32.1 31.9 31.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	29.6 29.6 29.6 29.6 20.0 0.00 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.00000 0.	31.3   29.1   29.1   29.1   29.1   29.1   29.1   27.3   27	30.9 30.9 30.9 30.7 30.7 30.7 30.7 30.7 12.542 71.4% 17.565 17.9% 0.000 0.000 17.9% 0.000 31, 0.000 31, 0.001 18.79	31.6 37.7  31.6 37.7  31.6 37.7  24th@1700 1st@1700  24th@1700 0.00  17,292 17,040,00  31,300,00 38,300,0  0.00 0.00 0.00	2nd@	30.9   32.4   30.9   32.4   30.9   32.4   30.7   29.8   30.7   29.8   30.7   29.8   30.7   29.8   30.7   29.8   30.7   29.8   30.7   29.8   30.7   29.8   30.7   29.8   30.7   29.8   30.7	3 28.3 3 28.3 3 28.3 3 28.3 3 28.3 5 37.5% 6 6.289 6 6.289 6 6.289 6 6.289 6 7th@0800 0 0.000 0 9.188,000 0 9.188,000 0 9.188,000	Class F  33.3  37.5  Coincider  Coincider  10.0  Customer A  87.643  Seas  Seas  Seas  14.607.167  32.750.00  0.00	Class Peak by Season  38.3  38.3  37.5  32.1  Coincident Peak by Season  0.0  0.0  Coincident Peak by Season  25.727  18.594  70.2%  Customer Averages by Season  1 1 1  Customer Averages by Season  1 25.2%  22.2%  22.2%  32.1  42.4%  61.916  61.000  0.000  0.000  0.000  52.2%  42.4%  52.2%  42.4%  60.0%  0.0%	37.5 37.5 37.5 son 44.320 28.5% 105.756 105.076 150.076 12.506.333 31,516.67
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On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F & All Weekends

TOU Periods - All Months:

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## Load Research Cost of Service Data Test Year Ended December 31, 2011

Customer # 3

	Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sep 11	Oct 11	Nov 11	Dec 11	SUMMER (May-Oct)	WINTER A	ANNUAL
SUMMATION IND MAX (MW)					1			•	•		il		Summatic	Summation Ind Max by Season	
Non-Timed	0:0	0:0	8.6	10.2	9.6	8:8	9.1	0.0	0:0	0.0	8.1	5.4	9.1	10.2	10.2
On-Peak	0:0	0.0	5.7	9.0	4.5	4.6	0.0	0:0	0.0	0.0	6.1	4.0	4.6	9.0	9.0
Off-Peak	0.0	0:0	8.6	10.2	5.6	8.8	9.1	0:0	0.0	0.0	8.1	5.4	9.1	10.2	10.2
CLASS PEAK (MW) On-Peak	0:0	0:0	5.7	9.0	4.5	4.6	0.0	0:0	0:0	0:0	6.1	4.0	Class	Class Peak by Season 4.6 9.0	9:0
Off-Peak	0.0	0.0	8.6	10.2	5.6	8.8	9.1	0.0	0.0	0.0	8.1	5.4	9.1	10.2	10.2
COINCIDENT (MW) System Time	0.0 5th@0800	0.0 3rd@0800	0.0 31st@2000	0.0 1st@1800 27	0.0 th@1700	0.0 27th@1700	0.0 2nd@1600	0.0 24th@1700 1	0.0 1st@1700 2	0.0 2nd@1700	5.2 1st@1900 7	2.8 7th@0800	Coincid 0.0	Coincident Peak by Season 0.0 52	n 5.2
ENERGY (MWH) On-Peak %	0.00	0.0%	124 34.5%	13.8%	163 25.5%	19 3.9%	0.0%	0.0%	0.00	0.0%	319 31.4%	317 29.5%	Energy S 0 0.0%	Energy Summation by Season  0 0.0% 0.0%	0.0%
Off-Peak %	0.0%	0.0%	236 65.5%	168 86.2%	478 74.5%	467 96.1%	13 100.0%	0.0%	0.0%	0.0%	69.6%	757 70.5%	0.0%	0.0%	0.0%
Total	0	0	360	195	641	486	13	0	0	0	1,016	1,074	1,140	2,645	3,785
CUSTOMERS Monthly Count		<del>-</del>	-	<del></del>	-	-	<del>-</del>	_	<del></del>	-	<del>-</del>	F	Customer 1	Customer Averages by Season 1	ion 1
FACTORS Coincident Factor (CP)	All load factors	s are calculated	0.000	All load factors are calculated based on 730 hours per montl 0.000 0.000 0.000 0.000	th. 0.000	0000	0:000	0.000	0.000	0.000	0.642	0.519	Se 0.000	Seasonal Factors	0.000
Load Factor (Max) %	%0:0	0.0%	5.7%	2.6%	15.7%	7.6%	0.2%	%0:0	%0.0	0:0%	17.2%	27.2%	2.9%	2.9%	4.2%
Load Factor (NCP) %	%0.0	0.0%	2.7%	2.6%	15.7%	7.6%	0.2%	%0.0	%0:0	0:0%]	17.2%	27.2%	2.9%	2.9%	4.2%
Load Factor (CP) %	%0.0	%0:0	%0:0	%0.0	%0:0	0.0%	0.0%	%0:0	%0:0	%0:0	26.8%	52.5%	0.0%	21.6%	0.0%
CUSTOMER AVERAGES Energy Use (kWh)	0	0	360,000	195,000	641,000	486,000	13,000	0	0	0	1,016,000	1,074,000	Sea 190,000	Seasonal Averages	315,417
Ind. Max Demand (kW)	00:00	0.00	8,600.00	10,200.00	5,600.00	8,800.00	9,100.00	0.00	00:00	0.00	8,100.00	5,400.00	3,916.67	5,383.33	4,650.00
Coincident Demand (kW)	0:00	00.00	0.00	00:00	00:00	0:00	0:00	00:00	0.00	0.00	5,200.00	2,800.00	0.00	1,333.33	666.67



\*\*\* Customer # 4 \*\*\*

ANNUAL	t by Season 5.3 18.1	5.3 8.2	4.8 18.1	Season 5.3 8.2	4.8 18.1	y Season 3.5 3.7	lon by Season 2,478 5,269 29.7% 23.7%	5,876 17,010 70.3% 76.3%	8,354 22,279	by Season	0.660 0.204	36.0% 14.1%	36.0% 14.1%	86.7% 0.0%	rages 333 1,856,583	.67 8,416.67	1,775.00	
SUMMER WINTER (May-Oct) (Nov-Apr)	Summation Ind Max by Season 18.1 5.3	8.2	18.1	Class Peak by Season 8.2 5.3	18.1	Coincident Peak by Season	Energy Summation by Season 2,791 2,478 20.0% 29.7%	11,134 5,8 80.0% 70.	13,925 8,3	Customer Averages by Season	Seasonal Factors 0.204 0.660	17.6% 36.	17.6% 36.	0.0%	Seasonal Averages 2,320,833 1,392,333	13,016.67 3,816.67	1,400.00 2,150.00	
Dec 11	3.8	3.7	3.8	3.7	3.8	2.2 7th@0800	471 29.5%	1,124 70.5%	1,595	F	0.579	57.5%	57.5%	%8.66	1,595,000	3,800.00	2,200.00	
Nov 11   E	5.3	5.3	3.5	5.3	3.5	1.6 1st@1900 7th	414	926 69.1%	1,340	F	0.302	34.6%	34.6%	114.7%	1,340,000	5,300.00	1,600.00	
Oct 11	4.4	4.4	4.4	4.4	4.4	3.7 2nd@1700 1	488	1,222	1,710	-	0.841	53.2%	53.2%	63.3%	1,710,000	4,400.00	3,700.00	
Sep 11	15.6	8.0	15.6	8.0	15.6	0.0 1st@1700 2	702	2,272 76.4%	2,974	1	0.000	26.1%	26.1%	0:0%	2,974,000	15,600.00	0.00	l Weekends
Aug 11	17.3	7.7	17.3	7.7	17.3	0.0 24th@1700	152	2,566	2,718	-	0.000	21.5%	21.5%	%0:0	2,718,000	17,300.00	0.00	Off-Peak 9 pm - 11 am, M-F.&. All Weekends
Jul 11	18.1	7.2	18.1	7.2	18.1	0.0 2nd@1600 2	370 12.8%	2,524	2,894	-	00000	21.9%	21.9%	%0.0	2,894,000	18,100.00	0.00	
Jun 11	9.7	8.2	9.7	8.2	9.7	3.0 27th@1700 2	586 30.6%	1,327 69.4%	1,913	1	0.309	27.0%	27.0%	87.4%	1,913,000	9,700.00	3,000.00	On-Peak 11 am 9 pm, M-F
May 11	13.0	7.8	13.0	7.8	13.0	1.7 27th@1700 2	493 28.7%	1,223	1,716		th. 0.131	18.1%	18.1%	138.3%	1,716,000	13,000.00	1,700.00	
Apr 11	4.2	3.0	4.2	3.0	4.2	1.8 1st@1800 2	334	819 71.0%	1,153	4-	All load factors are calculated based on 730 hours per month.    0.729	37.6%	37.6%	87.7%	1,153,000	4,200.00	1,800.00	TOU Periods - All Months:
Mar 11	2.1	2.0	2.1	2.0	2.1	1.8 31st@2000	402	918 69.5%	1,320		1 based on 730 0.857	86.1%	86.1%	100.5%	1,320,000	2,100.00	1,800.00	1
Feb 11	4.8	4.6	4.8	4.6	4.8	3.5 3rd@0800	462	1,049	1,511	F	s are calculated 0.729	43.1%	43.1%	59.1%	1,511,000	4,800.00	3,500.00	
Jan 11	2.7	2.2	2.7	2.2	2.7	2.0 5th@0800	395 27.5%	1,040	1,435	1	All load factor	72.8%	72.8%	98.3%	1,435,000	2,700.00	2,000.00	
	SUMMATION IND MAX (MW) Non-Timed	On-Peak	Off-Peak	CLASS PEAK (MW)	Off-Peak	COINCIDENT (MW) System Time	ENERGY (MWH) On-Peak %	Off-Peak %	Total	CUSTOMERS Monthly Count	FACTORS Coincident Factor (CP)	Load Factor (Max) %	Load Factor (NCP) %	Load Factor (CP) %	CUSTOMER AVERAGES Energy Use (KWh)	Ind. Max Demand (kW)	Coincident Demand (kW)	

\*\*\* Customer # 5 \*\*\*

	Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sep 11	Oct 11	Nov 11	Dec 11	SUMMER W (May-Oct) (N	WINTER AN (Nov-Apr)	ANNUAL
SUMMATION IND MAX (MW) Non-Timed	11.4	12.5	5.7	19.2	15.4	23.2	22.5	28.5	13.5	11.9	4.1	10.5	Summation in 28.5	Summation Ind Max by Season 28.5 19.2	n 28.5
On-Peak	7.4	5.5	5.5	6.8	7.1	4.0	0.0	0.0	0.0	4.9	4.1	5.0	7.1	7.4	7.4
Off-Peak	11.4	12.5	5.7	19.2	15.4	23.2	22.5	28.5	13.5	11.9	4.0	10.5	28.5	19.2	28.5
CLASS PEAK (MW) On-Peak	7.4	5.5	5.5	6.8	7.1	4.0	0:0	0.0	0.0	4.9	4.1	5.0	Class Pe	Class Peak by Season 7.1	7.4
Off-Peak	11.4	12.5	5.7	19.2	15.4	23.2	22.5	28.5	13.5	11.9	4.0	10.5	28.5	19.2	28.5
COINCIDENT (MW) System Time	0.0 5th@0800	0.0 3rd@0800	2.7 31st@2000	2.7 1st@1800	3.9 27th@1700	0.0 27th@1700	0.0 2nd@1600	0.0 24th@1700	0.0 1st@1700	0.0 2nd@1700	0.0 1st@1900 7t	0.0 7th@0800	Coincident	Coincident Peak by Season	3.9
ENERGY (MWH) On-Peak %	828 27.1%	681	580	377	589 23.7%	39	0.0%	0.0%	0.0%	132	176 30.0%	204 27.5%	Energy Sum: 760 7.8%	Energy Summation by Season 760 2,846 7.8% 27.3%	3,606 17.8%
Off-Peak %	2,221	1,833	1,228	1,362	1,893	1,834	1,811	1,629	1,580	271 67.3%	412 70.0%	536 72.5%	9,018 92.2%	7,592 72.7%	16,610 82.2%
Total	3,049	2,514	1,808	1,739	2,482	1,873	1,811	1,629	1,580	403	288	740	9,778	10,438]	20,216
CUSTOMERS Monthly Count		<del> </del>	F	<del> </del>	+	4	-	F	<del></del>	<del>-</del>	<del>-</del>	F	Customer Av	Customer Averages by Season	-
FACTORS Coincident Factor (CP)	All load fact	All load factors are calculated based on 730 hours per month.    0.000	d based on 73	0 hours per mo 0.141	nth. 0.253	0.000	0:000	0.000	0.000	0.000	0.000	0.000	Seaso	Seasonal Factors 0.141	0.137
Load Factor (Max) %	36.6%	27.6%	43.5%	12.4%	22.1%	11.1%	11.0%	7.8%	16.0%	4.6%	19.6%	9.7%	7.8%	12.4%	8.1%
Load Factor (NCP) %	36.6%	27.6%	43.5%	12.4%	22.1%	11.1%	11.0%	7.8%	16.0%	4.6%	19.6%	9.7%	7.8%	12.4%	8.1%
Load Factor (CP) %	%0:0	%0:0	91.7%	88.2%	87.2%	%0.0	0.0%	%0:0	0:0%	0:0%	0.0%	%0.0	%0'0	%0.0	0.0%
CUSTOMER AVERAGES Energy Use (KWh)	3,049,000	2,514,000	1,808,000	1,739,000	2,482,000	1,873,000	1,811,000	1,629,000	1,580,000	403,000	588,000	740,000	Season 1,629,667	Seasonal Averages 7 1,739,667 1	,684,667
Ind. Max Demand (kW)	11,400.00	12,500.00	5,700.00	19,200.00	15,400.00	23,200.00	22,500.00	28,500.00	13,500.00	11,900.00	4,100.00	10,500.00	19,166.67	10,566.67	14,866.67
Coincident Demand (kW)	00:00	0.00	2,700.00	2,700.00	3,900.00	00:0	00:00	0.00	0:00	00:0	0.00	0.00	650.00	900.00	775.00
				TOU Periods - All M	fonths:	On-Peak 11 am 9 pm, M-F		Off-Peak 9 pm - 11 am, M-F & All Weekends	Il Weekends						

	•					Load Researd Test Year End	Load Research Cost of Service Data Test Year Ended December 31, 2011	ice Data 31, 2011							
ハロロー	^					ō	*** Customer # 6 ***								
	Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sep 11	Oct 11	Nov 11   [	Dec 11	SUMMER (May-Oct)	WINTER ANNUAL (Nov-Apr)	П
SUMMATION IND MAX (MW)													Summation	Summation Ind Max by Season	1
Non-Timed	4.4	5.9	2.6	7.2	2.6	6.3	6.2	0:0	5.3	5.5	5.9	4.2	6.3	7.2	2
On-Peak	1.5	2.3	1.5	4.3	2.3	5.3	0.0	0:0	0:0	4.1	3.8	2.0	5.3	4.3	5.3
Off-Peak	4.4	5.9	2.6	7.2	2.6	6.3	6.2	0:0	5.3	5.5	5.9	4.2	6.3	7.2	2.7
CLASS PEAK (MW) On-Peak		2.3	1.5	4.3	2.3	5.3	0.0	0:0	0.0	1.1	3.8	2.0	Class P	Class Peak by Season 5.3 4.3 5	5.3
Off-Peak	4.4	5.9	2.6	7.2	2.6	6.3	6.2	0:0	5.3	5.5	5.9	4.2	6.3	7.2	2
COINCIDENT (MW) System Time	1.0 5th@0800	0.0 3rd@0800	1.0 31st@2000	1.0 1st@1800	1.4 27th@1700	0.0 27th@1700	0.0 2nd@1600 24	0.0 24th@1700 1	0.0 1st@1700 2	2.1 2nd@1700	1.0 1st@1900 7t	1.1 7th@0800	Coinciden	Coincident Peak by Season 2.1	2.1
ENERGY (MWH) On-Peak %	196	196	208 30.0%	254 31.1%	232 31.8%	15 2.7%	0.0%	0.0%	0.00	226	272 30.7%	208	Energy Sun 0 0.0%	Energy Summation by Season 0 1,335 0.0% 29.1% 0.0	0.0%
Off-Peak %	550 73.7%	503 71.9%	487 70.0%	562 68.9%	497 68.2%	538 97.3%	179	0.0%	386 100.0%	76.0%	69.3%	532 71.9%	0.0%	3,249 70.9% 0.0	0.0%
Total	746	669	695	816	729	253	179	0	386	945	888	740	2,792	4,584 7,3	7,376
CUSTOMERS Monthly Count	7	<del>-</del>	=		<del>-</del>	+	+	-	+	-	-	-	Customer A	Customer Averages by Season	F
FACTORS Coincident Factor (CP)	All load facto	All load factors are calculated based on 730 hours per month.  0.227 0.000 0.385 0.139	1 based on 73 0.385	0 hours per mor 0.139	th. 0.538	0.000	0.000	0.000	0.000	0.382	0.169	0.262	Seas 0.333	Seasonal Factors	<u> </u>
Load Factor (Max) %	23.2%	16.2%	36.6%	15.5%	38.4%	12.0%	4.0%	%0:0	10.0%	23.5%	20.6%	24.1%	10.1%	14.5% 11.7%	%
Load Factor (NCP) %	23.2%	16.2%]	36.6%	15.5%	38.4%	12.0%	4.0%	%0.0	10.0%	23.5%	20.6%	24.1%	10.1%	14.5% 11.7%	%
Load Factor (CP) %	102.2%	%0.0	95.2%	111.8%	71.3%	%0:0	%0.0	%0:0	%0:0	61.6%	121.6%	92.2%	0.0%	95.1% 0.0	0.0%
CUSTOMER AVERAGES Energy Use (kWh)	746,000	000'669	695,000	816,000	729,000	553,000	179,000	0	386,000	945,000	888,000	740,000	Seaso 465,333	Seasonal Averages 33 764,000 614,667	<b>1</b> 967
Ind. Max Demand (kW)	4,400.00	5,900.00	2,600.00	7,200.00	2,600.00	00:006'9	6,200.00	0.00	5,300.00	5,500.00	5,900.00	4,200.00	4,316.67	5,033.33 4,675.00	8
Coincident Demand (kW)	1,000.00	0.00	1,000.00	1,000.00	1,400.00	0.00	00:0	0.00	00:00	2,100.00	1,000.00	1,100.00	583.33	850.00 716.67	<b>.</b> 67
				TOU Periods - All N	fonths:	On-Peak 11 am 9 pm, M-F		Off-Peak 9 pm - 11 am, M-F & All Weekends	Weekends						

TOU Periods - All Months: On-Peak Off-Peak 11 am 9 pm, M-F 9 pm - 11 am, M-F & All Weekends

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## Load Research Cost of Service Data Test Year Ended December 31, 2011

STREETLIGHTS

•	Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sep 11	Oct 11	Nov 11	Dec 11	SUMMER (May-Oct)	WINTER AN (Nov-Apr)	ANNUAL.
SUMMATION IND MAX (MW) Non-Timed	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	Summation 31.9	Summation Ind Max by Season 31.9 31.9	on 31.9
	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9
	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9
CLASS PEAK (MW) On-Peak	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	Class P 31.9	Class Peak by Season 1.9	31.9
	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9
COINCIDENT (MW) System Time	0.0 5th@0800	0.0 3rd@0800	31.9 31st@2000	0.0 1st@1800 2	0.0 27th@1700   27	0.0 27th@1700 2r	0.0 2nd@1600 24	0.0 24th@1700 1s	0.0 1st@1700 2n	0.0 2nd@1700 1	31.9 1st@1900 7t	0.0 7th@0800	Coincidem	Coincident Peak by Season	31.9
	1,775	1,722	1,681	1,431	1,274	1,170	1,030	1,491	1,772	1,992	2,283	2,110	Energy Sun 8,728 12.6%	Energy Summation by Season 8,728 11,003 12.6% 16.2%	19,731 14.4%
	9,282	9,472	9,662	9,688	9,826 88.5%	10,233	9,833	10,589	10,101	10,055	9,558	9,389	60,638 87.4%	57,050 83.8%	117,688 85.6%
	11,057	11,194	11,343	11,119	11,100	11,403	10,863	12,080	11,873	12,047	11,841	11,499	998'69	68,053	137,419
	996	896	196	696	696	971	026	975	976	978	086	981	Customer A 973	Customer Averages by Season 973 972	on 973
FACTORS Coincident Factor (CP)	All load factor	s are calculated	1 based on 730 1.000	All load factors are calculated based on 730 hours per month.	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	Seas 0.000	Seasonal Factors	0.000
Load Factor (Max) %	47.5%	48.1%	48.7%	47.7%	47.7%	49.0%	46.6%	51.9%	51.0%	51.7%	50.8%	49.4%	49.6%	48.7%	49.2%
Load Factor (NCP) %	47.5%	48.1%	48.7%	47.7%	47.7%	49.0%	46.6%	51.9%	51.0%	51.7%	20.8%	49.4%	49.6%	48.7%	49.2%
Load Factor (CP) %	0:0	%0:0	48.7%	%0.0	0.0%	%0.0	0.0%	%0:0	%0:0	0.0%	20.8%	%0.0	%0:0	%0'0	0.0%
CUSTOMER AVERAGES Energy Use (kWh)	11,446	11,564	11,730	11,475	11,455	11,744	11,199	12,390	12,165	12,318	12,083	11,722	Seaso 11,878	Seasonal Averages	11,774
Ind. Max Demand (kW)	33.02	32.95	32.99	32.92	32.92	32.85	32.89	32.72	32.68	32.62	32.55	32.52	32.78	32.83	32.80
Coincident Demand (KW)	0.00	00:0	32.99	0.00	00:00	0.00	0:00	0.00	00:00	00:00	32.55	0.00	0.00	10.92	5.46

# sde ()

### Load Research Cost of Service Data Test Year Ended December 31, 2011

# \*\*\* DUSK TO DAWN \*\*\*

### Tab III

### R14-2-703 Section A.3

Attached is the number of customers by customer class for each of the previous 10 years.

Tab III

R14-2-207 Section A.3 - Customers by Customer Class for Previous Ten Years

Customer Class	2002	2003	2004	2005	2006	2007	2008	5003	2010	2011
Residential	801,801	828,366	859,069	896,472	936,464	966,013	977,944	983,539	989,877	994,244
Commercial	95,575	98,424	102,393	106,374	110,547	115,304	118,945	120,305	120,229	121,116
Industrial and Irrigation	3,671	3,681	3,730	3,794	3,871	3,927	3,933	3,857	3,777	3,744
Public Street Lighting	759	778	794	808	831	913	919	918	1,001	972
Other Public Authorities	223	210	199	191	182	170	164	162	163	160

### Tab IV

R14-2-703 Section: A.4

Reduction in load (kilowatt and kilowatt-hours) in the previous calendar year due to existing demand management measures, by type of management measure.

### APS DSM Electric Savings January - December 2011

[1] - [1] -			
		Kulukusana VIII - Erikil	
Low Income	0.2	2,437	42,653
Res Existing Homes HVAC	15.1	27,366	354,083
Res New Home Construction	2.8	4,540	90,794
Consumer Products	14.3	146,808	915,248
Appliance Recycling	2.1	14,168	85,008
Multi-Family	0.5	3,800	28,537
Behavioral Pilot	1.5	12,580	12,580
Shade Trees	0.5	772	23,158
		Track Total Stranger	
		A Company of the Comp	
Large Existing Facilities	17.8	122,529	1,619,504
Large Non Res New Const	2.6	17,483	266,241
Small Business	6.1	29,846	412,169
Energy Information Svcs	2.3	33	169
Schools	3.0	14,839	203,664

### Tab V

R14-2-703 Sections B.1.a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r

Portions of this information are competitively confidential and have been redacted. An unredacted version is being provided to Staff pursuant to an executed Protective Agreement.

Tab V R14-2-703 Section: B.1.a, b, c, d, e, f, g, h, j, l, m, n, o

2011 GENERATING LINIT INFORMATION - REDACTED

(B.1.o)	BASE LOAD, INTERMEDIATE, OR PEAKING UNIT	Base load Base load Base load	Base load Base load Base load Base load Base load	Base load Base load Base load	Base load Base load Base load	Peaking Peaking Intermediate Intermediate Intermediate Intermediate Intermediate	Peeking Peeking Peeking Peeking	Intermediate Intermediate	Peeking Peeking Peaking Peeking Peaking	Peaking Peaking Peaking Peaking Peaking Peaking Peaking Peaking Peaking	Peaking	Peaking Peaking Peaking Peaking Peaking	Intermediate Intermediate Intermediate
(B.1.n)	UNIT MUST BE RUN IF AVAILABLE	Yes Yes		111	111	. !!!!!!!				111111111	1		111
Ê	MINIMUM SAPACITY COAU NUCLEAR	381.5 382.4 381.8	88588	8 5 5	2 2 2								111
(B.1.m)	MINIMUM MINIMUM CAPACITY CAPACITY GAS/OIL COAL NUCLEAR					4 4 5 5 5 7 6 7 7 8	8844	250	88446	888888888		2 2 2 2 2 2	111
(8.1.1)	FUEL	Uranium Uranium Uranium	70 00 00 00 00 00 00 00 00 00 00 00 00 0	78 78 78 00 00 00	18 18 18 O	G 88 G 88 G 88 G 88 G 88	Gas Gas Gas	Gas	Gas/Oil Gas/Oil Gas/Oil Gas/Oil	688 668 668 668 668 668 668 668	ō	Gas/Oil Gas/Oil Gas/Oil Ges Ges	111
(B.1.j.)	FIXED O & M \$/MW-YR	1											
(107)	VARIABLE O & M S/MWH Over Minimum	1											
(B.1.h) (N7)	VARIABLE O & M S/MWH To Minimum												
(B.1.g.)	FUEL COSTS \$MBTU Coal Gas ON Nuclear												
(B.1.f)	AVERAGE HEA! RATE HEAT RATE HEAT RATE BTURNH BTURNH COMCUNIONHOMEN 50 % 75 % 100 % 50 % 75 % 100 %	THE THE PARTY STATES TH											
(B.1.e)	ANNUAL CAPACITY FACTOR												
(B.1.d)	MAXIMUM CAPACITY MW (N4) Winter	382	170 170 220 115.5	116 260 271	105 105	62 62 92 92 92 120 120 556	110 110 62 62	20g 20g	116 100 62 62 73	1 1 1 1 1 1 1 1 1 1 1	19	22 22 84 84 84 84	14 10 17
	Summer	382 382 382	170 170 220 115.5	116 280 271	105 105 105	50 50 85 85 490	5 t 8 8	474	65 65 65 65 65 65 65 65 65 65 65 65 65 6	* * * * * * * * * *	51	18 18 19 19 19 18 18 18 18 18 18 18 18 18 18 18 18 18	17 10.5 17
(B.1.c)	(APS SHARE) CAPACITY MW	381.5 / 387.9 382.4 / 388.8 383.2 / 389.6	170 170 220 112.5	116 280 271	501 501 501	55 55 88 88 88 711 700 800 800 800 800 800 800 800 800 800	110 110 88	492	110/110 100/100 56/54 (N3) 56/54 (N3) 78	3 2 2 3 2 2 3 3 3 3 3	5	19/19 (N3) 19/19 (N3) 55/54 (N3) 54 48	17.0 11.0 17.0
(B.1.b)	TYPE OF UNIT OR CONTRACT	Nuclear Steam Nuclear Steam Nuclear Steam	Steam Steam Steam Steam	Stearn Stearn Stearn	Steam Steam Steam	CT CT CT Combined Cycle Combined Cycle Combined Cycle Combined Cycle	Steam Steam CT	Combined Cycle Combined Cycle	Steam Steam CT CT	555555555	ь	555555	Solar PV Solar PV Solar PV
(B.1.a)	XOOK HE	2044	2016 2016 2016 2031 2031	2028 2033 2035	2026 2026 2028	2020 2020 2028 2028 2028 2038 2038 2038	2020 2020 2020 2020	2037	2020 2020 2020 2020 2037	2037 2037 2037 2037 2037 2037 2037 2037	2020	2020 2020 2020 2019 2043 2043	2041 2041 2041
 E	SERVICE	1986 1986 1988	1963 1964 1964 1969	1962 1978 1980	1974 1975 1976	1972 1973 1976 1976 1976 2001	1960 1960 1972	2002	1954 1972 1973 2002	2002 2002 2002 2002 2002 2002 2002 200	1972	1971 1971 1973 1974 2008	2011
<b>.</b>	PLANT	Palo Verde Unit 1 Unit 2 Unit 3	Four Corners Unit 1 Unit 2 Unit 3 Unit 3 Unit 4	Cholla Unit 1 Unit 3 Unit 3	Navajo Unit 1 Unit 2 Unit 3	West Phoenix CT 1 CT 2 CC 1 CC 2 CC 3 CC 3	Ocotilo Unit 1 ST Unit 2 ST Unit 1 CT	Redhawk CC 1 CC 2	Seguero Unit 1 ST Unit 2 ST Unit 1 CT Unit 2 CT	Sundance Unit 1 CT Unit 2 CT Unit 2 CT Unit 5 CT Unit 6 CT Unit 6 CT Unit 8 CT Unit 8 CT Unit 9 CT	Douglas Unit 1 CT	Yucca Unit 1 CT Unit 2 CT Unit 3 CT Unit 4 CT Unit 5 CT	Solar Cotton Center Hyder 1 Paloma

NOTEs:

Not lides is based on historical information, unless otherwise indicated.

2) Aug. their cost (item g) is based on all fixel expenses reported in FERC Form 1.

6) Unit cost adjusted to allocate the oil over each generating unit and it's respective oil bum.
7) Variable O&M \$/MWH to minimum (item it) for the CT's represents total start-up dollars, not \$/AWH.

Avg. fivel cost (item g) is based on all fivel expenses reported in FERC Form 1.

Final time five fideling the maximum capacity on the property of the final definition of an incidence of the maximum capacity on test.

Final time for an incidence and maximum capacity on the final data defined by the property of the final data data data.

R14-2-703 Section: B.1.b,c, d, f, h, i, k, & m

2011 Purchased Power Information <sup>1</sup>- REDACTED

	(B.1.a)	(B.1.b)	(B.1.m)	(B.1.c/B.1.d)	(8.1.6)	(8.1.i)	(B.1.k)	(B.1.h)
			Minimum	Maximum Contract	Average	Average Energy	Annual	Var
Company	in-service date and book life or contract period	Type of generating unit or contract	Capacity (MW)		Rate (BTU/kwh)	Cost 2010 (\$/MWH)	Charge (\$)	0&M (\$/MWh)
Salt River Project (Eastern Area)	6/15/2010 - 6/14/2020	WSPP Agreement	0	9				
City of Azusa Exchange	1/1/2011 - 12/31/2011	WSPP Agreement	30	30				
PAC Exchange	9/21/1990 - 10/31/2020	Exchange	u/a	480				
CE Turbo LLC²	1/27/2006 - 12/31/2029	Geothermal	0	12				
Aragonne Wind LLC <sup>2</sup>	12/29/2006 - 12/31/2026	Wind	0	06				
Snowflake White Mountain 2	6/10/2008 - 5/15/2023	Biomass	0	14.5				
High Lonesome Wind Ranch, LLC <sup>2</sup>	7/18/2009-7/18/2039	Wind	0	100				
Glendale Energy, LLC <sup>2</sup>	1/13/2010 - 1/13/2030	Landfill Gas	0	2.86				
RE Bagdad Solar 1, LLC <sup>2</sup>	12/30/2011 - 12/29/2036	Solar	0	15				
SunE AZ1, LLC <sup>2</sup>	11/29/2011 - 11/28/2041	Solar	0	10.0				
RE Ajo 1, LLC²	9/27/2011 - 9/26/2036	Solar	0	4.5				

Reflects contracts greater than or equal to 1 year in duration.
 Renewable energy contracts.

Tab V

# R14-2-703 Section: B.1.p

Environmental impacts, including air emission quantities (in metric tons or pounds) and rates (in quantities per megawatt-hour) for carbon dioxide, nitrogen oxides, sulfur dioxide, mercury, particulates, and other air emissions subject to current or expected future environmental regulation

					201	2011 Unit Emissions Rate	ssions Rate				
	Plant	Unit	205	Š	C02	PM10	8	<b>VOC</b>	H	MWH	
			(ib/MWH based on Ownership)	(lb/MWH based on (lb/MWH based on (ton/MWH based on Ownership) Ownership)	(ton/MWH based on Ownership)	(lb/MWH based on Ownership)	(lb/MWH based on Ownership)	(lb/MWH based on Ownership)	(lb/GWH based on Ownership)	(lb/MWH based on Ownership)	
Four Corners			1.40	8.45	2,312	0.20	0.32	0.0017	0.081	1,043,228	
	7		1.38	7.42	2,307	0.34		0.0015		1,328,466	
	<u> </u>		1.89	7.50	2,562	09.0	0.31	0.0020	0.078	1,490,266	
	4		1.57	4.38	1,913	0.10	0.28	0.0013	0.020	784,576	
	ī.		1.88	4.56	1,949	0.10	0.28	0.0013	0.019	751,668	
	₹	Plant	1.62	6.80	2,271	0.32	0:30	0.0016	0.063	5,398,204	
Navajo	<u> </u>		0.53	2.41	2,150	0.29	0.23	0.027	0.028	652,174	
	2		0.51	2.15	2,104	0.29	0.23	0.027	0.029	773,897	
	<u>ε</u>		0.55	2.28	2,123	0.30	0.23	0.028	0.029	804,469	
	<u> </u>	Plant	0.53	2.27	2,124	0.29	0.23	0.027	0.029	2,230,540	
Cholla			2.43	2.65	2,470	0.062	0.27	0.032	0.053	861,875	
	7		2.04	3.18	2,250	0.30	0.27	0.033	0.053	1,958,101	
	m		1.79	3.09	2,533	0.17	0.27	0.033	0.055	1,799,393	
	Č	•	•		č	č					
	Σ	Plant	7.07	3.04	2,401	0.21	0.2/	0.033	0.054	4,619,369	
Ocotillo	1		0.009	1.3	1,559	0.087	0.27	0.063	0.0029	43,128	
	2		0.009	1.4	1,558	0.087	0.27	0.063	0.0029	46,954	

Tab V

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Environmental impacts, including air emission quantities (in metric tons or pounds) and rates (in quantities per megawatt-hour) for carbon dioxide, nitrogen oxides, sulfur dioxide, mercury, particulates, and other air emissions subject to current or expected future environmental regulation

					2011	2011 Unit Emissions Rate	ons Rate			
	Plant	Unit	<b>S02</b>	Ň	<b>C0</b>	PM10	8	VOC	H <sub>8</sub>	MWH
	<u> </u>	CT1	0.011	0.9	2,179	0.12	1.5	0.039	0.0047	1,096
	<u> </u>	JT2	0.0138	7.4	2,691	0.152	1.9	0.048	0.0058	894
		Plant	0.0090	1.5	1,577	0.088	0:30	0.062	0.0030	92,072
West Phoenix		321	0.0069	3.4	1,346	0.0739	0.15	0.024	0.0029	109,974
	<u> </u>	22	0.0071	3.5	1,376	0.0755	0.15	0.025	0.0029	98,964
	J	CC3	0.0061	0.50	1,201	0.0096	0.59	0.09	0.0025	84,568
	<u> </u>	204	0.0051	0.36	1,076	0.011	0.027	0.039	0.0024	158,031
	<u> </u>	205	0.0163	0.16	931	0.0148	0.080	0.024	0.0019	1,250,625
	<u> </u>	TT.	0.016	8.7	3,173	0.18	2.2	0.057	0.0068	377
		.T2	0.017	9.0	3,276	0.19	2.3	0.059	0.0070	658
		Plant	0.0050	09.0	1,012	0.022	0.11	0.028	0.0021	1,703,197
Redhawk		) (1)	0.0044	0.148	876	0.024	0.10	0.0041	0.0019	2,034,518
•		C23	0.0044	0.112	884	0.021	0.09	0.0017	0.0019	1,541,034
		Plant	0.0044	0.132	880	0.023	0.09	0.0031	0.0019	3,575,552
	<del>, ,, ,</del>									
Yucca	<u> </u>	T1	0.0118	6.3	2,286	0.13	1.6	0.041	0.0049	578
	<u>.                                    </u>	TZ	0.011	0.9	2,192	0.12	1.5	0.040	0.0047	536
	<u> </u>	CT3	0.009	4.8	1,744	0.10	1.2	0.031	0.0037	5,837
	<u>~</u>	T.4	1.1	24.1	4,410	0.31	0.09	0.011	0.0328	224

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Environmental impacts, including air emission quantities (in metric tons or pounds) and rates (in quantities per megawatt-hour) for carbon dioxide, nitrogen oxides,

					111100	:	ŗ			
	•				7011 C	2011 Unit Emissions Kate	ons Kate			
ä	Plant	Cuit	202	Ň	CO2	PM10	8	VOC	H <sub>8</sub>	MWH
	CTS		0.0073	0.24	1,428	0.060	0.019	0.023	0.0027	82,242
	CT6		0.0071	0.23	1,396	0.059	0.012	0.022	0.0026	83,948
	Plant		0.009	0.46	1,432	0.061	0.066	0.023	0.0027	173,365
Saguaro	CT		0.011	6.0	2,175	0.12	1.5	0.039	0.0047	428
	CT2		0.021	11.0	4,024	0.23	2.8	0.073	0.0086	10
	<u>E</u>		0.0000	0.79	1,574	0.043	0.28	0.043	0.0033	7,994
	Plant		0.0005	1.1	1,626	0.045	0.35	0.048	0.0034	9,572
Douglas	CT1		0.90	19.0	3,487	0.25	0.071	0.0089	0.026	286
	Plant		0.90	19.0	3,487	0.25	0.071	0.0089	0.03	286
Sundance	₹		0.0062	0.28	1,343	0.015	0.13	0.040	0.0026	117,818
	Plant		0.0062	0.28	1,343	0.015	0.13	0.040	0.0026	117,818
Nuclear	₹		0	0	0	0	0	0	0	9,101,858
Hydro	₹		0	0	0	0	0	0	0	0
Biomass	₹		0	0	0	0	0	0	0	0
Solar	₹		0	0	0	0	0	0	0	84,568

Tab V

R14-2-703 Section: B.1.p

Environmental impacts, including air emission quantities (in metric tons or pounds) and rates (in quantities per megawatt-hour) for carbon dioxide, nitrogen oxides, sulfur dioxide, mercury, particulates, and other air emissions subject to current or expected future environmental regulation

	Plant	TOTAL COAL*	TOTAL GAS/OIL*	TOTAL FOSSIL*	TOTAL APS
	Unit				
	203	1.6	0.0049	1.1	0.71
	Ň	4.6	0.31	3.2	2.1
2011 [	C02	2,293	929	1,871	1,237
Jnit Emissic	PM10	2,293 0.27 0.28	0.025	0.19	0.13
ons Rate	8	0.28	0.10	0.22	0.15
	VOC	0.018	0.013	0.016	0.011
	₩	0.053	0.0020	0.037	0.024
	MWH	12,248,113	5,671,862	17,919,975	27,106,401

\*Does not include biomass

Tab V

# R14-2-703 Section: B.1.p

Environmental impacts, including air emission quantities (in metric tons or pounds) and rates (in quantities per megawatt-hour) for carbon dioxide, nitrogen oxides, sulfur dioxide, mercury, particulates, and other air emissions subject to current or expected future environmental regulation

		2011 U	nit Emission	2011 Unit Emissions Rate (Tons per year based on Ownership)	er year basec	d on Owner	ship)		
Plant	Unit	205	NOX	C00	PM10	8	VOC	Hg	MWH
Four Corners	н	731.4	4,407.6	1,206,092	105.8	165.4	6.0	0.042	1,043,228
	2	914.5	4,931.3	1,532,283	224.1	207.0	1.00	0.054	1,328,466
	ĸ	1,406.2	5,585.9	1,909,156	446.9	231.6	1.5	0.058	1,490,266
	4	614.7	1,720.1	750,602	40.3	111.7	0.50	0.0078	784,576
	S	706.6	1,712.9	732,416	35.7	105.2	0.50	0.0073	751,668
	Plant	4,373.5	18,357.8	6,130,550	822.8	821.0	4.4	0.17	5,398,204
Navajo	н	173.4	785.9	701,116	95.1	73.9	8. 6.	0.00	652,174
	2	197.8	833.2	814,123	113.1	87.8	10.6	0.0110	773,897
	<u>м</u>	222.7	915.5	853,893	119.0	92.5	11.1	0.012	804,469
	Plant	593.8	2,534.5	2,369,132	327.2	254.2	30.5	0.032	2,230,540
Cholla	н	1,047.1	1,141.0	1,064,262	27.0	115.1	13.9	0.023	861,875
	2	1,994.3	3,112.8	2,202,569	297.5	262.6	31.8	0.052	1,958,101
	m	1,613.3	2,776.1	2,278,657	152.2	243.5	29.5	0.050	1,799,393
	Plant	4,654.7	7,030.0	5,545,488	476.6	621.1	75.2	0.12	4,619,369
Ocotillo	П	0.2	28.3	33,616	1.9	5.9	1.36	0.000063	43,128
	2	0.2	33.9	36,575	2.0	6.4	1.47	0.000068	46,954
	Б	0.006	3.3	1,194	0.07	0.8	0.021	0.000003	1,096
	CT2	0.0062	3.3	1,203	0.07	0.8	0.022	0.000003	894
	Plant	4.0	68.7	72,588	4.1	14.0	2.9	0.000136	92,072
West Phoenix	5	0.38	187.2	74,028	4.1	8.2	1.3	0.00016	109,974
	55	0.35	172.1	68,065	3.7	7.6	1.2	0.00015	98,964

Tab V

R14-2-703 Section: B.1.p

Environmental impacts, including air emission quantities (in metric tons or pounds) and rates (in quantities per megawatt-hour) for carbon dioxide, nitrogen oxides, sulfur dioxide, mercury, particulates, and other air emissions subject to current or expected future environmental regulation

		2011 Un	it Emissions	2011 Unit Emissions Rate (Tons per year based on Ownership)	er year based	on Owners	thip)		
Plant	Unit	202	NOX	C02	PM10	8	voc	Hg	MWH
	633	0.26	20.9	50,778	0.4	24.8	3.7	0.00011	84,568
	55	0.40	28.6	84,983	6.0	2.2	3.0	0.00019	158,031
	CCS	2.9	98.0	582,400	9.2	50.1	14.7	0.0012	1,250,625
	CT1	0.003	1.6	598	0.03	0.4	0.011	0.000001	377
	ᄄ	900.0	3.0	1,078	90:0	0.8	0.019	0.000002	658
	Plant	4.3	511.5	861,930	18.4	94.0	24.1	0.0018	1,703,197
Redhawk	133	4.5	150.0	891,429	24.8	102.2	4.2	0.0019	2,034,518
	CC 7	3.4	86.0	681,136	16.4	66.5	1.3	0.0014	1,541,034
	Plant	7.9	236.0	1,572,565	41.2	168.7	5.5	0.0033	3,575,552
Yucca	Axis	0	0	0	0	0	0	0	0
	CT1	0.0034	1.8	661	0.037	0.46	0.0119	0.000001	578
	CT2	0.0030	1.61	587	0.033	0.41	0.0106	0.000001	536
	CT3	0.026	14.0	5,090	0.29	3.6	0.092	0.000011	5,837
	CT4	0.13	2.7	494	0.04	0.01	0.0013	0.000004	224
	CTS	0.30	6.6	58,738	2.5	0.79	0.93	0.000110	82,242
	СТ6	0:30	6.6	58,601	2.5	0.49	0.93	0.000110	83,948
	Plant	0.76	39.8	124,170	5.3	5.7	2.0	0.00024	173,365
Saguaro	н	0	0.49814	538	0.01	0.11	0.02	0.000001	673
	2	0	0.2766	470	0.01	0.10	0.02	0.000001	467

Tab V

R14-2-703 Section: B.1.p

Environmental impacts, including air emission quantities (in metric tons or pounds) and rates (in quantities per megawatt-hour) for carbon dioxide, nitrogen oxides, sulfur dioxide, mercury, particulates, and other air emissions subject to current or expected future environmental regulation

HMW	0.00001	0.00000004	7 0.000013 7,994	3 0.000016 9,572	3 0.000004 286	0.000004 286	117,818	117,818	0 9,101,858	0 0 0	0 0 0	0 0 84,568	12,248,113	0.0057 5,671,862	2 0.33 17,919,975	0 33 27 106 401
wnership)	ľ	U	1.1 0.17	1.7 0.23	01 0.0013	0.0 0.0	7.8 2.4	7.8 2.4	0	0	0	0	.3 110.1	9 37.0	147.2	147.2
based on Ov	ľ				16 0.01	0.0		.7 2.0	0	0	0	0	6 1,696.3	1 291.9	7 1,988.2	7 1.988.2
ns per year ba			1 0.17	1 0.22	9 0.036		3 0.9		-		0	0	1,656.6	1 70.1	1,726.7	1.726.7
ns Rate (Ton	465	20	6,291	7,784	499	499	79,088	79,088	J	J	J	J	14,045,169	2,718,624	16,763,793	16,763,793
2011 Unit Emissions Rate (Tons per year based on Ownership)	1.3	0.1	3.2	5.3	2.7	7.7	16.2	16.2	0	0	0	0	27,922.3	880.2	28,802.4	28,802.4
20111	0.0024	0.0001	00:00	0.002	0.13	0.13	0.4	0.37	0	0	0	0	9,622.0	13.9	9,635.9	9.632.9
<u>Unit</u>	5	CLS	<u>CT3</u>	Plant	E E	Plant	Ψ	Plant	¥	¥	₹	¥		*		
Plant					Douglas		Sundance		Nuclear	Hydro	Biomass	Solar	TOTAL COAL**	TOTAL GAS/OIL**	TOTAL FOSSIL**	TOTAL

\*Units are measured in Ib/GWh

<sup>\*\*</sup>Does not include biomass

### Tab V

R14-2-703 Section: B.1.q

Water consumption quantities and rates

2011 Generation Water Use

	Acre Feet Consumed	Gallons/MWH	
Cholla	15,720	701	
Four Corners	23,619	548	
Ocotillo	299	1,058*	
Palo Verde Groundwater	73,171	762	
Palo Verde Effluent	2,154	22	
Palo Verde Total	71,019	740	
Redhawk Groundwater	3,399	310	
Redhawk Effluent	345	31	
Redhawk Total	3,051	278	
Saguaro	191	6,487*	
Sundance	91	252	
West Phoenix	2,288	438	
Yucca	539	499	
Total APS Generation	195,885	665	

<sup>\*</sup>Ocotillo and Saguaro are unique in the APS fleet as peaking facilities which produce energy typically only when energy demands are high. However, they require using water on a continual basis to maintain systems on site. The G/MWH rates for these facilities are misleading due to the relatively small quantities of energy generated. In absolute terms, they only account for 0.25% of APS water usage in 2010 and are critical to supporting APS obligation to serve our customers.

<sup>&</sup>lt;sup>1</sup> All numbers represent total plant use and not APS share of ownership.

Tab V

R14-2-703 Section: B.1.r

Tons of coal ash produced per generating unit - 2011<sup>1</sup>

		Tons Fly Ash	Tons Bottom Ash	
Cholla	Unit 1	55,114	13,778	
	Unit 2	127,001	31,750	
	Unit 3	117,645	29,411	
	Unit 4	174,214	43,554	
	Total Cholla	473,974	118,493	
Four Corners	Units 1,2,3	413,113	103,278	
	Units 4,5	1,059,033	262,677	
	Total Four Corners	1,472,146	365,955	
	Total Company	1,946,120	484,448	

<sup>&</sup>lt;sup>1</sup> Numbers represent APS operated coal plants and do not reflect APS's share of ownership.

Tab V

R14-2-703 Section: B.1.p

### 2011 Emissions (Purchase Power Agreements)<sup>1</sup> - REDACTED

**Total Tons** (B.1.p) SO2 <u>NOx</u> <u>CO2</u> PM10 <u>co</u> <u>voc</u> Hg\* Annual MWH

Tab V

R14-2-703 Section: B.1.p,q,r

2011 Emissions/Water Use (Purchase Power Agreements)<sup>1</sup> - REDACTED

Generation Water Use	(B.1.q)	Gallons/MWh	
Generati	)	Acre Feet Consumed	
	(B.1.r)	Tons of Coal Ash <sup>2</sup>	
		Annual MWH	
		Hg*	
	(B.1.p)	VOC	
		8	
Ib/MWH		PM10	
		<u>2002</u>	
		NOx	
		<u> </u>	

Tab V

R14-2-703 Section: B.1.p,q,r

2011 Emissions/Water Use (Purchase Power Agreements)<sup>1</sup> - REDACTED

Generation Water Use	(B.1.q)	Gallons/MWh	
		Acre Feet Consumed	
	(B.1.r)	Tons of Coal Ash <sup>2</sup>	
		Annual MWH	
		Hg*	
		VOC	
	(B.1.p)	읭	
ІЬ/МЖН		PM10	
		<b>203</b>	
		XON	
		202	

### Tab VI

### R14-2-703 Section B.2.a

### A Description of Generating Unit Commitment Procedures

APS optimizes the use of its resources to serve native load in the most economical manner possible, while maintaining grid reliability. The process begins by forecasting the load on a day ahead basis. The load forecast is entered into a unit commitment and dispatch model (PCI GenTrader®/GenPortal®) that determines the most economic unit commitment plan for serving load, taking into account generating unit capabilities, intermittent resource production forecasts (wind, solar), fuel prices and transmission constraints. This commitment plan shows the units to be committed each hour, their projected loading level and the quantity of natural gas to be scheduled.

As part of the process, the model calculates prices for blocks of energy to help determine if it would be cheaper to buy power from the market rather than running generating units. The Day Ahead Trader compares these calculated block energy prices with actual power prices being offered in the market, then purchases either on-peak or off-peak blocks of energy, if economical. The model also calculates the breakeven price for making sales out of our generating units, after taking into account native load and any other pre-existing power sales commitments. If economical, the Day Ahead Trader will make power sales in the market.

The day ahead commitment plan is turned over to Real Time Operations to implement. The Real Time Traders update the load and available resource forecasts and re-run the unit commitment and dispatch model to fine tune the commitment plan. They also check the hourly market to make purchases and sales of power to further optimize the system. Any Demand Response products that can be utilized within the day are also considered.

The Real Time Traders commit (start) and de-commit (shutdown) generating units as needed to meet load and sales commitments. They also update the plan as needed for generating unit or transmission outages, optimizing utilization of available resources. Additional items which must be considered during the unit commitment process include: jointly owned units which may be requested on-line by their owners, fuel supply issues, the need to operate units for voltage or other problems due to temporary line outages, unit minimum on-line and off-line time requirements, and environmental constraints.

### Tab VI

R14-2-703 Section: B.2.b

### **2011 Production Cost**

Total Power Production expenses for the Calendar Year 2011 including O&M, Fuel and Purchased Power were \$1,433,304,007 of which \$(87,001,176) was related to Deferred Fuel.

Fuel and Purchased Power expenses including interchange for the Calendar Year 2011 were \$987,202,246 of which \$(87,001,176) was related to Deferred Fuel.

### Tab VI

R14-2-703 Section: B.2.c

### **2011 Reserve Requirement**

The actual Reserve Margin for 2011 was 1253.0 MW or 28.7% at the time of system peak. Total resources and Class A Interruptible exceeded our load and firm off system sales by this amount.

### Tab VI

R14-2-703 Section: B.2.d

### **2011 Spinning Reserve**

The Company maintains spinning reserve in compliance with quotas assigned by the Southwest Reserve Shargin Group for the Calendar Year 2011, these quotas were:

2011	Spinning Reserve Capacity (MW)
January	188
February	178
March	188
April	189
May	191
June	233
July	266
August	295
September	265
October	. 175
November	154
December	185

### Tab VI

R14-2-703 Section: B.2.e

### 2011

### Reliability of Generating, Transmission and Distribution Systems

APS follows the Institute of Electrical and Electronics Engineers (IEEE) 1366 – 2003, "Guide for Electric Power Distribution Reliability Indices" for measuring reliability. Three of the most common indicators used for measuring reliability are SAIFI (System Average Interruption Frequency Index), SAIDI (System Average Interruption Duration Index) and CAIDI (Customer Average Interruption Duration Index). These indicators are calculated with "Major Event Days" excluded, in accordance with Sections 3.13, 4.5 and Annex B.

The data provided below will be the portion of SAIFI, SAIDI, and CAIDI due to Generation, Transmission, and Distribution causes, repectively. The total of all three is the overall reliability experienced by APS customers.

Generation Reliability	
SAIFI	0
SAIDI (minutes)	0
CAIDI (minutes)	0
Transmission Reliability	
SAIFI	0.15
SAIDI (minutes)	14
CAIDI (minutes)	95
Distribution Reliability	
SAIFI	0.65
SAIDI (minutes)	65
CAIDI (minutes)	100

Tab VI

R14-2-703 Section: B.2.f

### **2011 Power Purchase and Sales Prices**

Jan-11	\$32.69	\$35.22
Feb-11	\$31.94	\$32.48
Mar-11	\$25.67	\$27.97
Apr-11	\$22.63	\$31.87
May-11	\$28.10	\$30.92
Jun-11	\$32.46	\$36.17
Jul-11	\$40.18	\$43.30
Aug-11	\$43.44	\$42.54
Sep-11	\$35.42	\$37.63
Oct-11	\$30.50	\$34.24
Nov-11	\$28.14	\$34.89
Dec-11	\$32.36	\$34.41

Note 1: Average purchase price represents all short-term power purchases (less than 3 years) divided by the associated megawatt hours.

Note 2: Average sale price represents total short-term power sales (less than 3 years) divided by the associated megawatt hours.

Tab VI

R14-2-703 Section: B.2.g

2011 Energy Losses

Energy losses for the Calendar Year 2011 were 6.6%.

\*Energy losses shown are exclusive of APS unregulated activities.

### Tab VII

### R14-2-703 Section B.3

### Total Interconnected Distributed Generation kW

A. Total reported for end of 2010:

190,111.8 kW

### B. Total for 2011 report:

Total for end of 2010:	190,111.8 kW
Rounding & small load adjustments	76.6 kW
Subtotal:	· 190,188.4 kW
Plus new projects added in 2011:	72,573.9 kW
Total for 2011 report:	262,762.3 kW

### **Tab VIII**

R14-2-703 Section: B.4

An explanation of any resource procurement processes used by the load-serving entity during the previous calendar year that did not include the use of an RFP, including the exception under which the process was used.

Following the success of the "2010 Request for Proposals for Photovoltaic Generation Resources" ("2010 RFP") and quality of the short-listed bids in that RFP, APS issued a follow up targeted requisition in late 2010 based upon the short list created in the 2010 RFP. APS used that short list to procure a substitute project in a timely manner for another AZ Sun project which had encountered significant delays. The solicitation was targeted to five potential respondents that had bid in the 2010 RFP who all had received high qualitative scores in the evaluation phase. The resulting agreement was executed on February 11, 2011 for the Paloma Project, a 17 MW solar PV project with First Solar under the AZ Sun program. This agreement resembles a bilateral agreement since it was not executed as a result of a "full" competitive procurement process.

The RFP exception under which that transaction was completed is R14-2-705.B(6). The transaction was necessary for APS to satisfy obligations under the RES rules. The use of an RFP in this case would not have allowed for timely AZ Sun program implementation. Nonetheless, APS retained an independent monitor to review the requisition, evaluation processes, and bid comparison to the 2010 RFP. The Independent Monitor's review was documented in a formal report on April 11, 2011.